

# The Mining Journal,

## RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

[The MINING JOURNAL is Registered at the General Post Office as a Newspaper and for Transmission Abroad.]

No. 2376.—VOL. LI.

LONDON, SATURDAY, MARCH 5, 1881.

[WITH SUPPLEMENT.] {PRICE ..... SIXPENCE  
PER ANNUM, BY POST £1 4s}

**MR. JAMES H. CROFTS, STOCK AND SHARE BROKER,  
AND MINING SHARE DEALER,  
No. 1, FINCH LANE, CORNHILL, LONDON, E.C.  
ESTABLISHED 1842.**

BUSINESS transacted in all descriptions of MINING Stocks and Shares (British and Foreign), Consols, Bonds (Foreign and Colonial), Railways, Insurance, Assurance, Telegraph, Tramway, Shipping, Canal, Gas, Water, and Dock Shares, and all Miscellaneous Shares.

BUSINESS negotiated in Stocks and Shares not having a general market value.  
Every Friday a general and reliable List issued (a copy of which will be forwarded regularly on application), containing closing prices of the week.

**MINE INSPECTED.**  
BANKERS: CITY BANK, LONDON.—SOUTH CORNWALL BANK, ST. AUSTELL.

**SPECIAL DEALINGS** in the following, or part:—  
30 Aberllyn, 11s. 3d. 50 Hingston Down, £18 9  
60 Almada, 9s. 6d. 150 Javali, 5s. 9d. 10 Roman Gravel, £3 10s.  
10 Cambrian, 15s. 10 Leadhills, £2 12s. 6d. 50 So. Devon, £3 10s.  
45 Carnarvon Cop., 22s. 20 Marke Valley, £1 8s. 9 20 S. Indian Gold, £2 3 9  
15 Devon Consols, £11 1/4 45 North D'Essey, 25s. 10 So. Condurrow, £10 8 9  
50 East Crebor, 13s. 50 Nouv. Monde, £1 6s. 3 50 South Darren, £2 1 3  
50 East Caradon, £1 15s. 100 N. Penstruthal, £1 15s 50 So. E. Wynad, £1 19s  
10 E. Roman Grav., 13s. 6 40 Pandora, 14s. 100 S. Penstruthal, 5s.  
25 East Van, £1 15s. 30 Pen-yt-Oreod, 19s. 30 Banker Gt. Con., 13s.  
50 Frontino, 45s. 50 Port Phillip, 11s. 50 Trevince Con., £1 5s.  
40 Glenrock, £1 15s. 50 Potosi, £1 17s. 6d. 50 United Van Consols  
40 Glenroy, 11s. 3d. 70 Prince of Wales, 15s. and Glyn, 8s.  
10 Grogwinion, £2 18s. 9 90 Parys Copper, 17s. 6d. 50 West Phoenix, £2 6s. 3  
75 Herodsfoot, 17s. 6d. 50 Pestagena, 8s. 9d. 30 Wheal Orebor, £4 3 9  
20 Ruby, £6 17s. 6d.

\* \* SHARES SOLD FOR FORWARD DELIVERY (ONE, TWO, OR THREE MONTHS) ON DEPOSIT OF TWENTY PER CENT.  
**SPECIAL BUSINESS** in North D'Essey Mountain.

**RAILWAYS—SPECIAL BUSINESS.**  
**FOREIGN BONDS—SPECIAL BUSINESS.**  
**AMERICAN STOCKS AND SHARES—SPECIAL BUSINESS.**  
Fortnightly accounts opened on receipt of the usual cover in these and all Stock Exchange Securities.

**JAMES H. CROFTS, 1, FINCH LANE, LONDON.  
ESTABLISHED 1842.**

**MR. W. H. BUMPUS, STOCK AND SHARE BROKER,  
AND MINING SHARE DEALER  
44, THREADNEEDLE STREET, LONDON, E.C.  
ESTABLISHED 1867.**

BUSINESS transacted in STOCK EXCHANGE SECURITIES and MISCELLANEOUS SHARES of every description.  
**RAILWAYS, BANKS, FOREIGN AND COLONIAL BONDS.**  
**TRAMWAYS, TELEGRAPHS, and all the LEADING INVESTMENTS.**  
Accounts opened for the Fortnightly Settlement  
A List of Investments free on application.

**MR. BUMPUS has SPECIAL BUSINESS** in the undermentioned:—  
50 Arendal, £2 1/2 50 Emma, £3 8s. 9d. 50 New Peavor, £2.  
75 Almada, 10s. 20 East Lovell, 100 Nouveau Monde, 27s.  
50 Blue Tent, 32s. 100 English-Australian Gold, 26s. 70 Pen-yt-Oreod, 22s. 6d.  
100 Bodidris, 21s. 15 Frongoch, 250 Port Phillip, 9s. 50 Pestagena, 9s.  
100 Carnarvon, 21s. 6d. 30 Frontino, £5. 25 Panulicillo, £6 8s. 9d. 10 Roman Gravel, £11.  
10 Cape Copper, £42 1/2 75 Grey's Brew., £4. 15 Richmond, £16 1/2. 50 So. Devon Uni., £3 1/2.  
40 Colorado, £2 8s. 9d. 100 Glenroy, 11s. 6d. 10 So. Indian, 100 So. E. Wynad, £1.  
25 Copiapo, £2 19s. 6d. 50 Great Laxey, £18 1/2. 50 Tin Hill, £2.  
50 Callao Bis, 34s. 6d. 20 Gunnislake (Clitters). 100 So. E. Wynad, £1.  
100 Derwal-Moyar, £1 11s. 100 Hungarian Cop., 13s. 50 Tamar (offer wanted).  
40 Derwent, 32s. 45 50 Hultafall, 31s. 6d. 50 Tincroft, £19 1/2.  
15 Devon Consols, £12. 40 Hingston Down, 29s. 10 Van, £15.  
100 Don Pedro, 12s. 9d. 100 Indian Glenrock, 34s. 40 W. Godolphin, £2 1/2.  
50 East Craven Moor, 75 La Plata, 32s. 100 Wh. Jewell, 13s. 6d.  
30 East Caradon, 31s. 20 Mellanear. 25 West Phoenix.  
50 E. Roman Grav., 14s. 6 10 Mona, £15.  
25 Eberhardt, 11s. 100 No. Herodsfoot.  
4 East Pool. 25 New Quebrada, £6 8 9  
40 East Van, 36s. 6d.

**SPECIAL BUSINESS**, at close prices, in the SHARES of all the principal HOME and FOREIGN MINES.  
Mr. BUMPUS devotes special attention to these Securities, and is in a position to afford reliable information and advice to intending investors and others.

**WILLIAM HENRY BUMPUS, SWORN BROKER.  
OFFICES: 44, THREADNEEDLE STREET, LONDON, E.C.  
ESTABLISHED 1867.**

**MR. CHARLES J. SIMS,  
MINING AGENT, STOCK AND SHARE DEALER,  
2, DRAPER'S GARDENS,  
LONDON, E.C.**

**MESSRS. DALSTON AND CO., STOCK AND SHARE DEALERS,  
29, THREADNEEDLE STREET, LONDON.**

**TIN HILL MINES.**  
This is our SPECIAL RECOMMENDATION, as we are sure the shares will have a great rise in a few days.

**MR. JOHN RISLEY, STOCK AND SHARE BROKER,  
38, CORNHILL, LONDON, E.C.  
ESTABLISHED 20 YEARS.**  
WEST CARADON, PARYS, NEW WEST CARADON, and WEST CREBOR specially recommended.  
SHARES BOUGHT OR SOLD ON COMMISSION.

**FERDINAND R. KIRK, STOCKBROKER,  
5, BIRCHIN-LANE, LONDON, E.C.**

**AMERICAN SHARES AND BONDS.**—Attention was recently called in "The Week" to Erie when at 39, to Readings at 16, and to Pennsylvania at 60. Despite the great advance still higher prices during 1881 may confidently be relied upon. Fifty shares of each, or any larger number may be secured for the account on receipt of the usual cover. New York Central and Illinois Central deserve attention.  
Money is to be made by operating in Atlantic and Great Western Mortgage Bonds.

**MR. GEORGE BUDGE, STOCK AND SHARE DEALER  
9, GRACECHURCH STREET, LONDON, E.C. (Established 28 years).  
ALL BUSINESS TRANSACTED FREE OF ANY CHARGE FOR COMMISSION.**

**Notice to Investors and Speculators.**  
Mr. Budge has DEALINGS in—  
100 Aberllyn, 11s. 3d. 50 Glenroy, 11s. 3d. 65 North Herodsfoot.  
50 Bodidris, 21s. 6d. 100 Grogwinion, 10s. 100 New Killy.  
100 Bedford United, 10s. 50 Hingston Down, £18 9  
10 Blue Hills, 10s. 50 Glenrock, 11s. 6d. 50 Nouveau Monde.  
10 Callao Bis, 34s. 6d. 50 Hungarian Copper, 13s. 6d. 50 Polrose.  
10 Devon Great Consols, 35s. 10 Kit Hill, 10s. 50 Prince of Wales.  
50 Don Pedro, 12s. 9d. 30 Indian Phoenix, 30s. 50 South Darren.  
100 Devala Moyar, 100s. 50 Lady Ashburton, 50s. 50 South Devon.  
35 East Devon Consols, 100s. 50 Llandegla, 100s. 50 West Killy.  
100 Exchequer, 100s. 50 Llandegla, 100s. 50 West Killy.  
100 English Australian, 100s. 50 La Plata, 32s. 100 Wh. Jewell, 13s. 6d.  
25 East Chiverton, 25s. 25 Marke Valley, 25s. 100 West Phoenix.  
10 East Van, 36s. 6d. 50 Mysore Reef, 50s. 100 West Caradon.  
10 Frongoch, 10s. 50 North D'Essey, 100s. 100 Wynad Perseverance.  
**SPECIAL BUSINESS** in Frongoch, Grogwinion, Devon Great Consols, Gawn, Wh. Coates, Penhalls, New Killy, Glenroy, Roman Gravel, Ystwith, South Devon, Bedford United, New Wye Valley, and Wynad Perseverance.

**BRITISH AND FOREIGN MINING OFFICES.**

**MESSRS. PETER WATSON AND CO.,  
18, AUSTIN FRIARS,  
OLD BROAD STREET, LONDON, E.C.  
BANKERS: THE ALLIANCE BANK (Limited).**

**MESSRS. PETER WATSON AND CO.'S  
BRITISH AND FOREIGN MONTHLY MINING NEWS  
—STOCK AND SHARE INVESTMENT NOTES—MINES,  
MINERALS, AND METAL MARKETS—SHARE LIST,  
No. 827, VOL. XVI., for FEBRUARY month, will shortly be  
ready, and will be sent to customers on application.**

Annual Subscription..... 5s. | Single Copy..... 6d.

**MESSRS. PETER WATSON AND CO.,  
18, AUSTIN FRIARS, E.C.**

**MR. ALFRED E. COOKE,  
DEALER IN BRITISH AND FOREIGN STOCKS AND SHARES  
OF EVERY DESCRIPTION.  
76, OLD BROAD STREET, LONDON.  
ESTABLISHED 1853.**

**SPECIAL.  
INVESTORS SHOULD PURCHASE SHARES IN—  
NORTH D'ESSEY MOUNTAIN at ..... £1 5 0  
CARNARVON COPPER ..... 1 1 6  
DEVON FRIENDSHIP ..... 1 0 0  
ORDERS at the ABOVE PRICES should reach Mr. COOKE not LATER than  
MONDAY NEXT, 7th MARCH.**

Every operator in MINES, RAILWAYS, FOREIGN STOCKS, or AMERICAN STOCKS should read the above. Post free three stamps.

**ALFRED E. COOKE,  
76, OLD BROAD STREET, LONDON.  
(Over 14 years at the above offices, adjoining the Stock Exchange, with which they are in DIRECT TELEGRAPHIC COMMUNICATION.)**

**STOCKS AND SHARES,  
FOREIGN BONDS, TELEGRAPHS, TRAMWAYS, RAILWAYS, AND  
OTHER LEADING SECURITIES.**

**MR. JAMES STOCKER, STOCKBROKER,  
2, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.  
Special Business at close prices in all British, Colonial, and Foreign Mine  
Shares.  
BANKERS: LONDON AND WESTMINSTER.**

**JOHN B. REYNOLDS,  
37, WALBROOK, LONDON, E.C.  
ESTABLISHED 25 YEARS.  
BANKERS: LONDON JOINT STOCK.**

**WEST KITTY MINE.**  
A ready market for the Sale or Purchase of these Shares can be found at this office. Mr. REYNOLDS continues to recommend them for investment.

**REYNOLDS  
ON THE MARKETS AND THE FLUCTUATIONS.  
A short Pamphlet for the Investor and the Uninitiated. Highly commended  
by the Press. NOW READY.  
Forwarded gratis on application to  
JOHN B. REYNOLDS,  
37, WALBROOK, LONDON, E.C.**

**NEW KITTY MINE.  
SPECIAL BUSINESS IN THESE SHARES at from £1 1/2 to £1 1/4.  
Apply to—  
JOHN B. REYNOLDS, STOCK AND SHARE DEALER,  
(BY WIRE OF LETTER)  
37, WALBROOK, LONDON, E.C.  
BANKERS: LONDON JOINT STOCK.—ESTABLISHED 25 YEARS.**

**MR. F. CUNNINGHAM, STOCK AND SHARE DEALER,  
THE EXCHANGE, SOUTHWARK, LONDON.  
NOTE.—TIN HILL shares should be bought at once.**

**MESSRS. ABBOTT AND WICKETT,  
STOCK AND SHARE BROKERS, REDRUTH,  
ORDERS BY TELEGRAM PROMPTLY EXECUTED.**

**MESSRS. THOMSON AND CO.,  
STOCK AND SHARE DEALERS,  
44, THREADNEEDLE STREET, E.C.  
BANKERS: ROYAL EXCHANGE.  
Business transacted in every description of Stocks and Shares.  
TREVINCE CONSOLS.—We advise the immediate purchase of these shares.  
Price 25s. There must be a great advance in price shortly. See Report.**

**HORACE J. TAYLOR, STOCK AND SHARE DEALER,  
(Late of the PORT PHILLIP AND VICTORIA [London] MINING  
COMPANIES, Limited.)  
38, GREAT ST. HELEN'S, LONDON, E.C.  
BUSINESS TRANSACTED IN EVERY DESCRIPTION OF STOCKS AND  
SHARES.**

**WEST LISBURN.—**Shares should be secured in this mine, which ere long will take an important position.  
BWLCH UNITED recommended as a sound legitimate investment.  
SOUTH DEVON strongly recommended for an important rise.  
BANKERS: CENTRAL BANK OF LONDON (Limited).

**MR. THOMAS THOMPSON, JUN., STOCK BROKER,  
16, ST. SWITHIN'S LANE, E.C.  
Mr. THOMPSON transacts business in every species of Stock Exchange and  
Mining Securities.  
Mr. THOMPSON affords reliable information to investors, and can give when  
desired, a list of first-class Stocks and Shares, yielding 4 to 10 per cent. dividends  
upon present prices.  
Mr. THOMPSON'S weekly Circular may be had on application.**

**MR. W. B. COBE, STOCK AND SHARE DEALER,  
29, BISHOPSGATE STREET, LONDON, E.C.  
A FEW VERY CHEAP SHARES in a thoroughly good undertaking. Particulars  
on application.  
Investment Circular for February on application.**

**MR. W. MARLBOROUGH, STOCK AND SHARE DEALER,  
29, BISHOPSGATE STREET, LONDON, E.C.**

**Can SELL the following SHARES at prices annexed:—**  
30 Bedford Unit, £2. 100 Exchequer Gold, 5s. 3 20 South Devon, £3 11 3  
50 Brazilian Gold, 22s. 9d. 10 East Lovell, £4 16s. 3d. 50 So. Penstruthal, 5s. 9d.  
10 British United, 25 Frontino, £5 2s. 6d. 25 So. Indian Gold, £2 1/2  
30 Carn Camborne, 25 Gunnislake (Clitters), £4 17s. 6d. 25 Tamar Silver-Lead, £2 1/2  
40 Carnarvon, 22s. 24 17s. 6d. 60 Tecoma, 5s.  
25 Colorado, £2 7s. 6d. 50 Hungarian Cop., 20s. 6 5 Van, £15 1/2  
100 Chontales, 3s. 6d. 50 Javali, 5s. 3d. 10 Van & Glyn Ten per  
50 Consolidated, 9s. 20 North Alfred, 50 Vincent.  
20 Devon Gt. Uni., £2 1/2 50 Nouveau Monde, £1 1/2 30 West Crebor, 8s. 9d.  
75 Don Pedro Gold, 13s. 6 50 Parys Corpor., 16s. 9d. 30 West Lisburne.  
10 Devon Consols, £12 1/2 100 Pesterena, 9s. 3d. 20 West Phoenix, £2 3s. 9  
20 East Caradon, £1 13 9 75 Prince of Wales, 14s. 9 20 Wheal Orebor, £4 1/2  
20 English Australian, 50 Port Phillip, 9s. 9d. 10 Ruby, £7 1/2  
Gold, £1 1/2  
Particulars of some really cheap and good mining investments on application.  
WEST LISBURN.—These shares should be secured at present low price for a  
certain rise in the coming spring.  
NORTH ALFRED.—An important improvement has taken place in this mine.  
shares dealt in at close prices.

**THE "DIFFERENTIAL" PUMPING ENGINE  
(DAVEY'S PATENT),  
FOR**

**DRAINING MINES, WATER SUPPLY OF TOWNS, IRRIGATION,  
SUPPLYING DOCKS, PUMPING SEWAGE, and GENERAL  
PUMPING PURPOSES.**

**HATHORN, DAVEY, AND CO.,  
LEEDS.**

HATHORN, DAVEY, and Co. have Patterns of "Differential" Engines of all sizes, from 5 to 500-horse power, and have facilities for supplying very powerful Engines and Pumps at a short notice.

See Illustrated Advertisement every alternate week.

**MR. CHARLES THOMAS,  
MINING AGENT, STOCK AND SHARE DEALER,  
3, GREAT ST. HELEN'S, LONDON, E.C.**

**MR. ALFRED THOMAS,  
MINING AGENT, AND STOCK AND SHARE DEALER,  
10, COLEMAN STREET, LONDON, E.C.**

**MINING INVESTMENTS.**  
"What to Select, and What to Avoid," by ALFRED THOMAS, 10, Coleman-street, London, E.C. Will be forwarded on receipt of 12 stamps.

ESTABLISHED 1852.

**HENRY GOULD SHARP,  
STOCK AND SHARE BROKER, 42, POULTRY, LONDON, E.C.  
Bankers—London and County Bank, Lombard-street, London, E.C.**

**SAFE PROFITABLE INVESTMENTS.**

**INVESTMENTS IN STOCKS AND SHARES.**

**GOLD, FOREIGN, BRITISH MINES.**

**CAPITALISTS, SHAREHOLDERS, TRUSTEES**

Should act only upon SOUND ADVICE and Reliable Information.

**CONSULT**

**SHARP'S INVESTMENT CIRCULAR**

The MARCH EDITION contains 12 pages (post free).

**SAFE DIVIDEND INVESTMENTS PAYING 4 TO 6 AND 10 PER CENT.  
PER ANNUM ON PRESENT OUTLAY.**

It is a Reliable "Guide," giving valuable information and Sound Advice, &c. It gives Market prices; Dividends upon outlay, when payable; Reports, &c., &c.

**IT CONTAINS THE SAFEST INVESTMENTS IN THE FOLLOWING:—**

English, Foreign Railways. Insurance, Gas, Waterworks.  
Preference, Debenture Stocks. Colonial, Foreign Stocks.  
Indian, American Stocks. British, Foreign, Colonial Mines.  
Bank, Financial Shares. Tea, Land Shares.  
Tramway, Telegraph Shares. Shipping, Dock Shares.  
Municipal Bonds. Miscellaneous Shares, &c., &c.

**NOTE.—ALL STOCKS AND SHARES BOUGHT AND SOLD AT THE  
CLOSEST QUOTATIONS.**

**MR. E. J. BARTLETT, BRITISH AND FOREIGN STOCK  
AND SHARE DEALER, No. 30, GREAT ST. HELEN'S, LONDON, E.C.**

Now ready, Fifteenth Edition, enlarged to 100 pages, post free 1s.

**HOW TO INVEST.—**No one should invest either large or small  
sums without first reading this work.

"More valuable than ever."—Vide Public Press.

**MR. EDWARD ASHMEAD, 2, DRAPER'S GARDENS, E.C.,  
MINING SECRETARY, AUDITOR, AND ACCOUNTANT.**

**JOHN BANTING ROGERS, STOCK AND SHARE DEALER,  
ST. CLEMENT'S HOUSE, LOMBARD STREET, LONDON.**

**THOMAS B. LAWS, STOCK AND SHARE DEALER,  
AND MINE ACCOUNTANT,  
2, CHURCH COURT, CLEMENTS LANE, LONDON.**

**MR. W. TREGELLAS, 40, BISHOPSGATE STREET  
WITHIN, E.C.**

Deals in all descriptions of STOCKS AND SHARES at close market prices, and is always in a position to do business in SANTA BARBARA, PITANGUI, and BRAZILIAN GOLD MINES.

**PENNINGTON AND CO., SWORN BROKERS,  
3, ROYAL EXCHANGE BUILDINGS, E.C.  
Transact business in every description of Stocks and Shares.  
ESTABLISHED 1869.—BANKERS: ALLIANCE.**

**TREVINCE CONSOLS.—**This mine continues to improve, and will, in our opinion, shortly occupy a prominent position. We most strongly advise immediate purchase of shares for a rapid rise. Price 25s.

**SPECIAL BUSINESS** in Devonport and Tiverton Grey's Breweries, New Gold Run, Gold Coast, and Chapel House shares.

**MESSRS. ENDEAN AND CO., STOCK AND SHARE  
DEALERS, 85, GRACECHURCH STREET, LONDON, E.C.  
ESTABLISHED 1861.**

**BANKERS: LONDON AND WESTMINSTER, Lothbury; and  
BARCLAY, BEVAN, and CO., Lombard-street, E.C.**

**JOSEPH TOMS, STOCK AND SHARE DEALER,  
No. 38, BISHOPSGATE STREET WITHIN, E.C.**

Strongly recommends the purchase of shares in—  
Carnarvon Copper. Wheal Boys. East Lovell.  
Parys Corporation. West Holway. Wheal Grenville.

And is in an advantageous position to supply shares at close net prices. Buyers or sellers should communicate. A selected list of investments post free on application.

**MR. C. E. SARGENT,  
STOCK AND SHARE BROKER,  
LISKEARD.**

Mr. C. E. SARGENT, having had many years' experience in mining, and residing in the district of the celebrated CARADON, PHENIX, HERODSFOOT, and MENHENIOT Mines, is in a position to GIVE RELIABLE INFORMATION TO INTENDING INVESTORS AND OTHERS.

Highest references given if required.

Bankers: Devon and Cornwall Bank, Liskeard.

**F. R. FRANCIS, FRANKS,  
CORN EXCHANGE CHAMBERS, CHESTER**

Has SPECIAL BUSINESS in HALKYN DISTRICT DRAINAGE, RHYDALUN, RHODESMOR, NORTH HENDRE, and PEN-YR-OREDD.

Also, in PITANGUI (Gold), BRAZILIAN GOLD MINES, SANTA BARBARA, and WEST FRONTINO.

**MR. JOHN L. M. FRASER**

(Fourteen Years at the Great Miners' Engine)

**CONSULTING MINING ENGINEER, &c.**

**GREENFIELD HOUSE, WREXHAM.**

**BRITISH SILVER-LEAD MINES.**

Samples and assay of the silver-lead ore from the Great New-borough Lode, with a Plan of this Property, can be seen at

GARRICK'S HOUSE, ADELPHI TERRACE, STRAND.



## CLOSING OF THE LISTS.

Notice is hereby given, that the Lists for Subscription for the 14,000 Shares at par will be Closed on March 9th for London, and March 10th for the Country. W. H. B. REDFORD, Secretary.

Highly favourable reports are given on the properties by Captains GEORGE ROWE (of Wheal Crebor, Gawton, &c.), JOHN GOLDSWORTHY (of South Crebor, &c.), CHARLES SECCOMBE (Tavistock), THOS. GREGORY (late Manager of Drakewalls), R. UNSWORTH, R. TOYE, and by Captain WM. TEAGUE, of Carn Brea.

## Walkham United Mines, Limited.

INCORPORATED UNDER THE COMPANIES ACTS, 1862 TO 1880, BY WHICH THE LIABILITY OF THE SHAREHOLDERS IS LIMITED.

CAPITAL £20,000, IN 20,000 SHARES OF £1 EACH.  
FIRST ISSUE OF 14,000 SHARES, AT PAR.

PAYABLE—5s. per share on application, 5s. on allotment, the balance by instalments as required.

Five per Cent. Discount allowed on the remaining 10s. per Share if paid on allotment, and fully paid-up Share Certificates will be issued.

## DIRECTORS.

A. N. SHERSON, Esq., Director East Wheal Rose, Limited.

Lieut.-Col. W. M. KNOLLYS, Brooks's Club, St. James's, S.W.

GEORGE FORMAN, Esq., Deputy Chairman Indian Queens and Parka Mines Consols, Limited, and Director East Wheal Rose, [Limited.

(With power to add.)

BANKERS—THE STANDARD BANK OF LONDON, Lombard Street, E.C., London.

SOLICITOR—GILBERT TERRELL, Esq., 84, Lombard Street, E.C., London.

AUDITORS—Messrs. FLETCHER, QUENNEL, and Co., 8, Old Jewry, E.C., London.

SECRETARY (PRO TEM.)—Mr. R. H. B. REDFORD.

OFFICES—ST. ANDREW'S HOUSE, 28, CORNHILL, E.C., LONDON.

This company is formed to purchase the leases, machinery, and plant of two valuable tin mines, lately known as the Walkham and Poldice properties, situate, adjoining each other, on the right and left banks of the River Walkham, in the parishes of Whitchurch and Buckland, near Tavistock, Devon, and for the further development of and working the said mines.

The properties may almost be considered as going concerns, the mines being well supplied with machinery, comprising three powerful water-wheels, hauling gear, &c., 20 heads of stamps, buddles, dressing appliances, calciners, with account-house, smiths' shops, &c., all well and efficiently constructed. Shallow workings have been carried out, and the mines have been partially laid open with the most satisfactory results; it will be seen by the accompanying reports that a large quantity of tin was taken, and profitable returns made from the shallow workings.

The recent depression in mining led the late proprietors to temporarily stay operations, pending the improvement, which has since taken place; in anticipation of this change, and of the advance in the metal trade, the present owners purchased the properties, retaining the machinery, plant, &c., thereon: and the company takes immediate possession of mines in going order, and work will be commenced with the view to returning tin immediately at the profitable rates now prevailing for that mineral.

A great and special feature in these mines is the favourable situation of the properties, the setts embrace several known tin and copper

lodes-traversing the hills, which rise at a steep gradient from the bed of the River Walkham. Adit levels will be driven on these lodes, the work being accordingly done very cheaply, and the river affords the great advantage of water-power, by which all the machinery on the mines is driven, there being an ample supply in winter and summer, considered sufficient for all the requirements of the mines working up to 60 or 70 heads of stamps.

The setts are extensive, one being 400 fms. on the course of the lodes by 400 fms. wide, the other is 1 mile on the course of the lodes by about 1 mile wide.

The dues are moderate; being 1-18th.

It is intended to carefully proceed with opening up both the mines, erecting additional stamping machinery (to be driven by water-power), and it is anticipated that large and profitable returns will be made within a short time.

From the accompanying reports it will be seen that with only 28 heads of stamps, 30 tons of tinstuff per day can be crushed, estimated to yield 10 tons of tin per month, which at £55 per ton (the average price at present for Cornish tin ore) will give ..... £550 0 0 Deduct wages, royalty, and all costs ..... 240 0 0

Leaving a profit of ..... £310 0 0  
With 56 heads of stamps, considerably more than double the amount—£7440—per annum should be made, which is sufficient to pay over 50 per cent. upon the capital required.

The directors believe they have secured a valuable property, capable of remarkably cheap working; the heavy outlay and expense of steam-engines, &c., will be avoided; the mines will be worked simply, efficiently, and in every respect economically. The vendors are the promoters of the company, and show their faith in the prospects of the undertaking by stipulating to have their entire consideration—one-half of the capital, £10,000, in fully paid shares of the company; receiving no cash whatever, either for the machinery, plant, outlay, promotion expenses, or otherwise.

Working capital is required to develop the mines, and it is for this the directors solicit subscriptions. Allotment will be made in the order in which applications are received, and where no shares are allotted, the deposit paid on application will be returned in full.

The only contracts entered into are made between James Murray of the one part, and Thomas Edwin Crocker and James Thomas Browne of the other part, dated the 2nd day of December, 1880, and between the said Thomas Edwin Crocker and James Thomas Browne of the one part, and Robert H. B. Redford for and on behalf of the company of the other part, dated the 2nd day of February, 1881.

Applications with a deposit of 5s. per share must be made on the accompanying form, and sent to the bankers, brokers, or secretary.

Prospectuses, reports, and Forms of Application can be had from the secretary at the offices of the company, where copies of Memorandum and Articles of Association and contracts may be seen.

## Registration of New Companies.

The following joint stock companies have been duly registered:—

TAYLOR'S PATENT CAPSTAN COMPANY (Limited).—Capital 5000£., in shares of 83£. 6s. 8d. To acquire and deal in a patented invention of improved capstan, windlass, and hoisting apparatus. The subscribers are—J. Taylor, Birkenhead, 19; G. Cradock, Wakefield, 10; J. Lang, Wakefield, 10; J. Burn, Sunderland, 5; J. H. Pragnell, Derby, 5; J. M. H. Taylor, Liverpool, 1; J. Lang, Coatbridge, 1.

CLARIDGE'S HOTEL COMPANY (Limited).—Capital 65,000£., in shares of 10£. To purchase and carry on an hotel in the West-end. The subscribers are—J. de Havilland, Queen Victoria-street, 50; A. C. Walker, Walton-on-Thames, 25; J. W. Burchall, 5, Broad Sanctuary, 1; W. Burchall, Junior, 5, Broad Sanctuary, 25; W. Burchall, 5, Broad Sanctuary, 5; W. Willie, 349, Clapham-road, 1; G. A. Holme, 8, Regent-street.

THE GIFFARD PATENT FREEZING COMPANY (Limited).—Capital 20,000£., in shares of 25£. The manufacture and sale of machinery, packing, and other apparatus in connection with certain patents. The subscribers (who take one share each) are—D. Archer, 147, Fenchurch-street; F. A. Gwynne, 15, Bury-street; A. Mackay, Lyndhurst; D. Macneill, 7, Lothbury; S. Mackay, 7, Lothbury; C. Reiner, 7, Lothbury; A. D. Mackey, 107, Victoria-street.

RHONDDA JUNCTION WELSH COAL COMPANY (Limited).—Capital 40,000£., in shares of 10£. To adopt and carry into effect an agreement made between H. Kirkhouse on the one part and J. Butler for the company to purchase and acquire the works of Fowler's Pontypridd Steam Coal Company (Limited), known as the Marine Rhondda Steam Coal Collieries, in liquidation, and all other interests, property, business, plants, machinery, assets, and effects of said company. To win, work, get and sell the coal, ironstone, fireclay and minerals, and to carry on the trades of colliery proprietors, coke manufacturers, miners, smelters, brickmakers, fuel manufacturers, general contractors, &c. The subscribers (who take one share each) are—F. W. Burge, 8, Cophall-court, stockbroker; J. R. Tyler, Sittingbourne, lieut.-col.; G. W. Brett, 5, East India Avenue, colliery proprietor; H. C. Burge, Bristol, gent.; J. S. S. Smith, Hagbourne, gent.; W. David, Cardiff, Rev.; R. D. Taylor, 8, Cophall-court, stockbroker. The subscribers will name the first directors, whose numbers must not be less than three or more than seven.

THE MEKARSKI COMPRESSED AIR TRACTION COMPANY (Limited).—Capital 250,000£., in shares of 10£. To carry on the business of manufacturing engines, machinery, and apparatus in connection with certain patents for "an improved compressed air motor." The subscribers (who take one share each) are—R. W. Grosvenor, 62, Queen's Gate; F. E. Chapman, 12, Bina Gardens; C. W. Strange, 9, Osnaburgh-terrace; J. J. Leeman, York; E. Wyham, Crawley; J. R. Chipperton, 3, Westminster Chambers; F. J. Bladdon, Upper Norwood.

GEORGE DEAKIN (Limited).—Capital 100,000£., in shares of 50£. Purchasing, working, or otherwise disposing of certain saltworks situate at Wharton and Over, Cheshire. The subscribers (who take one share each) are—A. Deakin, Hartford; J. B. Deakin, Oxtow; G. H. Deakin, Hartford; W. McQuie, Edge-lane; J. Craigie, Cloughton; Jane Craigie, Cloughton; W. Burrows, Southgate; F. Burrows, Southgate.

THE LITTLE INVESTOR COMPANY (Limited).—Capital 5000£., in shares of 1£. The buying, selling, and dealing in stocks, shares, and other securities. The subscribers (who take one share each) are—K. F. Bellairs, Crown-court; P. Wilkinson, 7, Castelnan Gardens; G. E. Sloggett, 36, King's Cross-road; W. A. Gunner, Peckham; S. V. Montefiore, 58, Lombard-street; J. A. Wells, 118, Upper Tulse Hill; H. Simpson, Chelsea.

THE TIC-SANO COMPANY (Limited).—Capital 50,000£., in shares of 1£. To acquire and continue the business of wholesale druggists,

patent medicine vendors, &c. The subscribers (who take one share each) are—C. S. C. Watkins, 46, Queen Victoria-street; F. A. Roques, 11, Queen Victoria-street; H. Gillingham, 25, Budge-row; J. B. Brown, Highbury; J. R. Morford, Lewisham; H. Nottingham, Peckham; J. Doyle, 12, Moreton-place.

THE MUNICIPAL FREEHOLD LAND COMPANY (Limited).—Capital 100,000£., in shares of 10£. To carry on the business of a land and building society. The subscribers (who take 10 shares each) are—W. H. Richards, 36, Mark-lane; E. Pulleyne, 16, Clareville-grove; J. V. R. Rees, Chelsea; J. G. Batton-Browning, Hanover-square Club; R. Richards, 5, Fitzroy-square; Viscount Pollington, 8, John-street; G. Marshall, Mayville.

GLAMORGANSHIRE WORKMEN'S COTTAGE COMPANY (Limited).—Capital 20,000£., in shares of 10£. To carry on the business of a building society in all branches. The subscribers are—F. G. Evans, Cardiff, 50; E. Hill, Llandaff, 50; J. N. Flint, Cardiff, 20; G. Thomas, Cardiff, 10; E. Seward, Cardiff, 10; C. Thompson, Cardiff, 10; F. de C. Hamilton, Cardiff, 2.

FLAGSTAFF DISTRICT SILVER MINING COMPANY (Limited).—Capital 160,000£., in shares of 1£. To adopt and carry into effect a contract for the purchase of the Flagstaff Mine, and certain adjoining mines and property situate in the territory of Utah, together with the plant, machinery, and other effects. To work, explore, develop, and maintain the mines, minerals, and other properties of the company, and to conduct the business of raising, working, mining, smelting, and selling lead and other ores, metals, and minerals in all branches. The subscribers (who take one share each) are—C. J. Cadogan, Hornsey, accountant; M. Vincent, 127, Strand, geologist; G. Burnett, Banstead, gentleman; H. G. Lousada, 15, Austinfriars, solicitor; A. Numkittick, 32, West Cromwell-road, manager; E. J. Emanuel, 15, Austinfriars, solicitor; A. Kerly, 14, Great Winchester-street, solicitor. The number of directors must not exceed five or be less than three.

MORGAN'S MARINE BOILER TUBE REPAIRING COMPANY (Limited).—Capital 10,000£., in shares of 1£. To manufacture iron, steel, and other substances in connection with certain acquired patents. The subscribers (who take one share each) are—J. B. Ball, Gresham Buildings; E. F. Paddon, 26, Walbrook; T. Smith, 155, Malpas-road; C. W. Cornish, South Hackney; J. Beazley, 3 and 4, Great Winchester-street; C. R. Belcher, Brixton; R. Hollis, New Cross.

THE CANADIAN AND BRAZILIAN DIRECT MAIL STEAMSHIP COMPANY (Limited).—Capital 280,000£., in shares of 10£. To carry on a shipowner's business in all branches. The subscribers (who take one share each) are—G. C. Turnbull, 27, Leadenhall-street; E. W. Berryman, 27, Leadenhall-street; E. Walker, 11, Leadenhall-street; H. Eascott, 11, Leadenhall-street; J. Brown, 60, Fenchurch-street; G. Moffatt, 6, Lime-street; D. F. D. Maclean, 33, Lime-street.

THE LONDON AND COUNTY HOUSE, LAND, AND GENERAL INVESTMENT COMPANY (Limited).—Capital 100,000£., in shares of 10£. To carry on the combined businesses appertaining to a land and building society. The subscribers (who take 25 shares each) are—J. Harverson, Hackney; T. Catten, Chislehurst; E. A. Beckett, 111, Kingsland-road; G. Gable, 304, Kingsland-road; G. Rogers, 14, St. Swithen's-lane; T. Cross, Holloway; W. May, St. Mary Cray.

THE CYPRUS LAND MORTGAGE AND INVESTMENT COMPANY (Limited).—Capital 400,000£., in shares of 10£. To transact all the business of an agricultural, mercantile, land mortgage and investment company. The subscribers are—P. T. Curtis, 32, Fenchurch-street, 100; B. F. Killierby, East Dulwich, 1; W. J. Thompson, 38, Mincing-lane, 100; H. H. Ley, 90, Ladbroke Grove, 5; W. Sheldon, Amherst Park, 10; W. H. Adams, 30, Peckham Grove, 1; H. King, 65, Cornhill, 100.

THE BALTIC STEAMSHIP COMPANY (Limited).—Capital 50,000£., in shares of 25£. To carry on the business of a steamship owner. The subscribers (who take one share each) are—H. E. Miller, 10, Duke-street; C. T. Gladstone, Brighton; A. Walker, 147, Leadenhall-street; H. W. Weguelin, 57½, Old Broad-street; C. H. Gladstone,

4, Brunswick-place; F. North, 57½, Old Broad-street; H. W. Pane, 4 Royal Exchange Buildings.

BRUNNER, MOND, AND COMPANY (Limited).—Capital 600,000£., in shares of 10£. To acquire the business of chemical manufacturers, &c., with the goodwill and effects of Brunner, Mond, and Co., established in Cheshire, and to carry on same. The subscribers (who take one share each) are—J. Crossfield, Walton Lea; J. T. Brunner, Warrington Hall; B. Mond, Warrington Hall; C. M. Holland, Chester; E. Milner, Warrington; J. P. Brunner, Liverpool; H. Tate, Highfield Moreton.

THE LEE-ON-SEA HOTEL AND BOARDING ESTABLISHMENT COMPANY (Limited).—Capital 25,000£., in shares of 1£. To purchase land and erect and carry on an hotel at Lee-on-Sea, near Ilfracombe. The subscribers (who take one share each) are—G. Robinson, 35, Pall Mall; W. Creper, Tavistock; T. R. Kelly, Tavistock; J. Nicholls, Pillaton; J. Kempthorne, Callington; W. W. Dymond, Callington; J. E. Spear, Callington; J. Turner, Cornwall.

THE INTERNATIONAL SUPPLY COMPANY (Limited).—Capital 20,000£., in shares of 1£. To carry on the business of engineers, constructors, and contractors of rolling stock, &c. The subscribers (who take one share each) are—W. D. Mann, 116, Piccadilly; H. B. Johnston, 10, Dean's-yard; C. K. Stewart, 7, Collingham-road; U. de Luno, 37, Old Jewry; V. Middleton, Langham Hotel; W. J. Cutbill, 37, Old Jewry; A. S. Hughes, Lee.

THE LONDON CELLULOSE COMPANY (Limited).—Capital 30,000£., in shares of 10£. To manufacture in connection with certain acquired patents, and sell all articles to be made of celluloid, or any compounds of nitro-cellulose. The subscribers (who take one share each) are—C. L. Addersley, Coventry; E. H. Bayley, 42, Newington Causeway; J. C. Bayley, 1, Queen Victoria-street; R. W. Hanbury, Ashbourne; H. Honey, Chislehurst; A. Parkes, Sutton Coldfield; A. Allott, 6A, Austinfriars.

THE TURIN WATERWORKS COMPANY (Limited).—Capital 775,000£., in shares of 25£. To construct and maintain waterworks, canals, &c. The subscribers (who take one share each) are—J. Hendrey, Walbrook; C. E. Rashleigh, 38, Lincoln's Inn Fields; A. Howard, Lambeth; J. H. Hendrey, Euston; R. B. Berens, St. Mary Cray; G. A. H. Dyke, 13, Hartford-street; T. Cobb, 43, Lincoln's Inn Fields.

MANGANESE BRONZE.—A satisfactory trial trip of Donald Currie's Cape liner, Garth Castle, has been made. A special feature is the adoption in this vessel, for the first time in a merchant steamer, of manganese bronze propeller blades. The great strength of this material, which contains 78 per cent. of copper, and its perfect immunity from corrosion and pitting, render it possible to make the blades very materially thinner than those of any other metal, whilst at the same time a thoroughly smooth surface is obtained, and a perfectly true pitch, the blades not being liable to be distorted, as in the case of blades when being annealed. These advantages are clearly illustrated by comparing the performance of the Garth Castle with that of her predecessor, the Kinfauns Castle, built by the same firm. These vessels have precisely similar engines and boiler pressure. The Kinfauns Castle has steel propeller blades 24½ ft. pitch and 19 ft. diameter; she made 63 revolutions and 13.9 knots on trial, while the Garth Castle, with manganese bronze propeller blades 25 ft. pitch and the same diameter, accomplished 66 revolutions and 14.32 knots on trial.

HOLLOWAY'S PILLS—WEAKNESS AND DEBILITY.—Unless the blood be kept in a pure state, the strongest constitution will fail and disease supervene. These truly wonderful pills possess the power of neutralising and removing all contaminations of the blood. They quietly but certainly overcome all obstructions tending to produce ill-health, and institute regular actions in organs that are faulty from derangement or debility. The dyspeptic, weak, and nervous may rely on these pills as their best friends and comforters. They improve the appetite and thoroughly invigorate the digestive apparatus. Holloway's pills have long been known to be the surest preventives of liver complaints, dreadful dropsies, spasms, colic, constipation, and many other diseases always hovering round the feeble and infirm.



# The Corporation of South Australian Copper Mines (Limited).

INCORPORATED UNDER THE COMPANIES ACTS, LIMITING THE LIABILITY OF SHAREHOLDERS.

CAPITAL £250,000 IN SHARES OF £1 EACH.

FIRST ISSUE 200,000 SHARES, OF WHICH 62,500 SHARES ARE ACCEPTED IN PART PAYMENT OF THE MINES.

2s. 6d. per Share payable on application; 7s. 6d. per Share payable on allotment; and the balance at intervals as required.

In case where no allotment is made, the money paid on application will be returned in full.

## DIRECTORS.

The Right Hon. Lord HEADLEY, Chairman.  
The Lord RICHARD HOWE BROWNE, Chairman of the Bordeaux Tramways Company (Limited).  
The Hon. FULKE GREVILLE, The Glen, Sunninghill, Ascot.  
The Hon. ASHLEY PONSONBY, Director of the Submarine Telegraph Company.  
\*R. A. ROUTH, Esq., Chairman of the English and Australian Copper Company (Limited).  
H. T. SANKEY, Esq., Chairman of the Tolima Mining Company (Limited).  
\* (Will join the Board after the completion of the purchase.)

## COLONIAL COMMITTEE.

Sir JOHN MORPHETT (ex-President of the Legislative Council of South Australia, and Director of the Yorke Peninsula Mining Company (Limited)).

The Hon. JOHN CARR, J.P. (late Chairman of Parliamentary Committees and Commissioner of Crown Lands, and Chairman of the National Life Association of Australia), Adelaide.

DAVID MURRAY, Esq., J.P., Messrs. D. and W. Murray, Merchants, Adelaide and London (Chairman of the Australia Felix Insurance Company), Adelaide.

BANKERS—Messrs. BARCLAY, BEVAN, TRITTON, and Co., 54, Lombard-street, London, E.C.  
THE BANK OF AUSTRALASIA, Adelaide, South Australia.

SOLICITORS—Messrs. CAMPBELL, REEVES, and HOOPER, 17, Warwick-street, London, W.  
Messrs. BRUCE and STUART, Adelaide, South Australia.

BROKERS—Messrs. R. B. SMITH and Co., 5, Angel Court, London, E.C.

AUDITORS—Messrs. QUILTER, BALL, and Co., 5, Moorgate-street, London, E.C.

SECRETARY—Mr. SYDNEY A. COBBETT.

OFFICES—1, WINCHESTER HOUSE, 53A, OLD BROAD STREET, LONDON, E.C.

## PROSPECTUS.

This company has been formed to acquire and develop a number of exceedingly valuable Government mineral grants, stated to contain some of the largest and richest deposits of copper ore that have ever been discovered in any part of the world. The various mineral properties, eighty three in number, containing in the aggregate an area of 8796 acres, are distributed over an large tract of country, and comprise the best and most remarkable discoveries that have been made from time to time in the well-known mineral district situated within 200 miles to the north of Port Augusta in South Australia, as may be seen on reference to the Surveyor-General's map at the offices of the company.

No important are these discoveries, that the Government, after a long and careful enquiry into the matter, extending over several years, are now constructing a railway, 200 miles in length, at a cost of upwards of a million sterling, to open up the vast resources of this district. The works are being pushed on rapidly, and the line is already completed, and opened on Dec. 16 last by the Governor a distance of 120 miles. The route of the railway from Port Augusta northward to the mines has been chosen with a view to develop the mineral traffic, both in the hills and on the plains, and the line passes within a moderate distance of all the properties acquired by this company, as shown on the above-mentioned map.

Some of the mines have been worked and their mineral wealth proved to a depth varying from a few feet to many fathoms. Considerable quantities of high-class copper ore have been raised and sold, but the 200 miles of conveyance by bullock wagons has hitherto been prohibitory to an extensive development. The time has now arrived, in consequence of the approaching completion of the railway, when, by the judicious expenditure of capital in opening out the resources of these extraordinary deposits of high-class ore, and in erecting the necessary machinery to dress the same, the expectations of the most sanguine may be realised.

Mr. Austin in his work on the "Mines of South Australia," alluding to this district, after a personal inspection of the several discoveries, says:—"With this important auxiliary (the railway) to their successful working, wealth almost unimagined may be developed and employment found for thousands of persons." In a communication by the same gentleman to the *Mining Journal* of Oct. 2, 1875, respecting this district, he says:—"The Mount Rose property" (acquired by this company) "I consider one of the best that I saw in the north, and there has been sufficient work done to show the permanent nature of the lodes of ore, which are very rich, from 20 to 60 per cent. of copper."

"From my knowledge of the country we may, when railway communication is established, rival Chili in our exports of copper." A writer in an article in the *South Australian Advertiser*, 10th November, 1874, alluding to this district, says:—"There is no question now in the minds of competent judges as to the richness contained in this mountain range. It is metalliferous throughout, and judged by actual discovery it bids fair to rank among the most productive to be found anywhere. At the south, upon the flanks of the range, thinly covered by tertiary deposits or cropping up to the very surface, we have lodes of copper equal, perhaps, to any in the world." "It needs only a line of railway running from Port Augusta for about 200 miles, to open up what we believe will turn out to be one of the richest metalliferous regions of the world."

Again in the same public journal of June 17, 1875:—"Among the great works to be brought forward is a railway some 225 miles north of Port Augusta, so as

to tap the rich mineral district lying in that region, which is believed to possess untold wealth, and which only needs a facile method of conveyance to the seaboard to be turned to great and useful account."

South Australia is known throughout the world for its great copper mines, and for the remarkable purity of the copper, which (under the brands of P.C.C. or Burra and Wallaroo) has a special value for telegraphic and electric purposes. The Moonta Mine paid in dividends £1,024,000, and the Burra Mine £782,320.

A glance at the map will show that the same range of hills in which the Burra Mine is situated extends northward to this district, in which are some of the properties of this company, where extensive deposits of copper ore have been discovered.

The Moonta Mine is in the level country west of these hills. The western plains northwards from Port Augusta are a continuation of this level country running parallel to the hills. In these plains several important copper discoveries have been made, and secured by this company.

Considering, therefore, the wealth of mineral positively laid open in some of the lodes, and the rich quality of the ore, it may be fairly assumed that among the 83 separate mineral properties belonging to this company distributed throughout these two localities there are several mines in the hills that will, on development, prove similar to the Burra, and also many in the plains that will resemble the Moonta.

One of the first properties to be worked is the Blinman Mine, which it is stated has already produced and sold over £250,000 of copper and ore, and when at work employed several hundred persons.

In spite of the heavy drawback of expensive, slow, and tedious cartage by bullock teams, a distance of some 150 miles, costing £10 to £12 per ton, that absorbed nearly all the profit, the Blinman and other mines in the locality raised and sold a large quantity of ore of a very high percentage, but ultimately it was found impossible to contend against such a heavy expense for cartage, together with the delay and great loss of ore in transit, that all the mines ceased working.

Capt. Paul, of the Blinman Mine, in his report of 11th June, 1877, which can be seen at the offices of the company, says:—"The nearest port is Port Augusta, 150 miles distant where the copper ore is carted to, and from whence all stores are obtained. For the last two years the rate of cartage has rarely been under £10 to £12 per ton. To contend against this was impossible, and all mines have ceased working."

Only the richest ores were sold, but hundreds of tons of mineral of a lower percentage may now be utilised and give a good profit. As an illustration of the saving in the cost of cartage that will be effected by the railway, it is estimated that the total expense including cartage from the mines to the railway and thence to the port will be about 2s. per ton; and what is of equal importance is the certainty of being able to forward ore and stores at all seasons of the year without being delayed or left without protection on the road for months.

A description of several of the properties as given before the Parliamentary Committee is open to inspection at the offices, but is too voluminous to print herewith. A short summary from the same and other reports is appended hereto, and will give a general idea of the value and importance of the deposits of ore, which it will be seen is confirmed by the following extracts from the reports of the Parliamentary Committees, upon which the Government were induced to undertake the expenditure of a million sterling on the railway.

The reports of the Parliamentary Committees, dated 1860 and 1869, state:—"The Committee have to report that they have examined a great many witnesses, and have collected much valuable information, relating to the Northern Mineral District."

"Many of the witnesses examined by your Committee are men having much practical experience in mining, and, consequently, well qualified to give an opinion as to the probable mineral value of the district."

"The character of the ore wherever it has been raised is described as being of the most valuable sorts; virgin or native copper, grey sulphuretted, red oxide, green and blue carbonate, and consider it one of the very excellent mineral properties in the North. No work has been done. The lode is showing for about 200 yards. At the Gammon Creek Mine the same authority reports:—"The lode is a well defined one, showing on the surface for about three chains in length for an average width of 4 ft. The ore can be raised with very little trouble, and scarcely any dressing will be required. It will be found that this section is of immense value if my experience and the appearance of the ore and matrix are any guide."

"The whole of the evidence goes to show that the country in the far north is exceedingly rich in mineral deposits, and offers a rare opportunity for the profitable investment of capital." "It is in evidence that one mine alone (the

Blinman) is supporting a population of 1500 persons, and that if facilities of transit were offered, there are many mines of equal, and even superior value, that could be immediately and profitably worked."

Some idea of the richness of the lodes may be gathered from the perusal of the Colonial Government Blue-book, and from the fact that the copper ores of Devon and Cornwall average about 6 per cent. of metal, and realise £3 to £4 per ton, whilst the mineral from some of the mines of this Corporation have yielded 30 per cent. and upwards of fine copper, worth at present prices, about £20 per ton. All the properties acquired are held under the new mineral regulations of the South Australian Government on lease for 99 years for licence with right of lease for a similar term, at a rent of 1s. per acre, and a small royalty of 2½ per cent. —6d. in £1—on the net profits, except the Blinman Mine, which is held on a sub-lease under a former Act, and with the addition of the payment of £100 a year, to merge into one-thirtieth royalty.

The English and Australian Copper Company of London, who have smelting works at Adelaide, and purchased most of the ores sold from the above mines when first discovered, and who are acquainted with the repute and importance of the several mineral properties, have entered into a contract to purchase on favourable terms, at Adelaide or Port Augusta, all the ores raised, thus saving much of the expenses of freight and other charges on the ore, as well as loss of time if shipped direct to England. They have also acquired land at Port Augusta, with a view of erecting additional furnaces there for the treatment of the ore from these mines.

The English and Australian Copper Company will be happy to answer any enquiries, and afford information respecting these mines, to any person applying at their offices, 6, Gracechurch-street, London, E.C.

The first operations of the company will be given to the development of those properties nearest the railway, that can be opened out with the smallest expense and least delay, and when in working order sold or leased to other companies as may be determined, as it is manifestly impossible for this Corporation single-handed to work all the mines discovered on these properties, some of them being of sufficient magnitude to employ the capital and energies of several substantial companies. The profit arising from such sales will be distributed as a bonus from time to time, by which it is anticipated the capital of this company will be returned to the shareholders; whilst the profit on the working of mines in hand will be available for the payment of the annual dividend.

With so many mines producing ore of the most valuable kind, and some to a large extent, which can be raised at a minimum cost, it is difficult to estimate the limit of the annual profits, more especially, as when the mines become opened out, the returns of ore may be indefinitely increased.

The directors, however, do not wish to put forward too favourable a view of the probable returns that may be realised, but simply state it is anticipated from the numerous mineral discoveries acquired, and the abundance and richness of the ores, that the profit on the working of the several mines which opened out will admit of the payment of substantial annual dividends.

A prominent feature in this undertaking is that, unlike other mining enterprises, the company's success is not dependent on the working of one mine alone, but is assured from the wealth of mineral discovered in several; and there will be no waiting an indefinite period for returns, as large quantities of ore can at once be raised and sent to market at a comparatively small outlay. It will thus be seen from the foregoing there is every prospect that exceptional profits and advantages are likely to accrue to the shareholders of this company, and it is believed that no mining enterprise has ever been offered for subscription with such a prospect of mineral wealth from so many separate sources.

The vendor, who is also the promoter, recently acquired (as will be seen from the agreements set forth below) the mineral properties herein mentioned, and has fixed the purchase-money at £72,500—payable £62,500 in fully paid-up shares and £10,000 in cash, and out of his profit is to provide for the payment of all expenses incidental to the formation of the company up to an allotment of shares, exclusive of brokerage.

The following are the only agreements which have been entered into, and can be seen at the offices of the solicitors to the company, Messrs. Campbell, Reeves and Hooper, 17, Warwick-street, W.

One dated the 29th July, 1880, made between E. Cooke and V. Lawrence, of Adelaide, South Australia, of the one part, and T. A. Masey, of the other part; and an agreement between the same parties, dated the 29th November, 1880, and 26th February, 1881.

One dated the 12th August, 1880, between the English and Australian Copper Company, of the one part, and T. A. Masey, of the other part, relative to the purchase and smelting of the ores; and an endorsement thereon, dated the 2nd December, 1880.

One dated the 23rd September, 1880, between R. S. Fraser, of the one part, and T. A. Masey, of the other part; and endorsements thereon dated the 22nd January, 1881, and 26th February, 1881.

One dated the 1st November, 1880, between T. A. Masey, of the one part, and S. A. Cobbett, for and on behalf of the company, of the other part; and a letter dated 24th November, 1880, and agreement 28th February, 1881.

Provision has been made in the Articles of Association, whereby a register of colonial members will be kept in Adelaide, South Australia, so as to enable shares to be dealt in and transferred in the colony.

The evidence given before the Parliamentary Committee and other reports with respect to the several mines, the Memorandum and Articles of Association, and specimens of ore, can be seen at the offices, 1, Winchester House, 53A, Old Broad-street London, E.C., where prospectuses and all information can be obtained.

## Meetings of Public Companies.

### GREAT DYLIFFE MINING COMPANY.

The annual general meeting of shareholders was held at the office, Moorgate-street, on Monday,

Capt. H. JERVIS ALFRED, H.A.C., in the chair.

Mr. BENNETT read the notice calling the meeting.

The CHAIRMAN read the report of the directors. After referring to the rise in the price of lead ore to over 13s. per ton a year since, which, had it continued, would have given large profits, but instead, dropped as suddenly to less than 10s., necessitating the discontinuance of certain works which had been commenced in connection with the deepening of the Llechwedd-du engine-shaft. The report continued as follows:—

The other alternative work—commencing on the New lode, which has always been considered a very valuable portion of the company's property, was begun in October on a small scale to prove its value. The managing director having submitted to the board a comparatively inexpensive mode of working the same, from plans prepared by him when at the mine, all necessary machinery being in stock. After working for nearly two months the new lode was cut, proving to be of an average thickness of 6 in. solid lead ore, and in one part opening out to 12 in. solid ore. The directors consider that, with judicious working, this part of the estate will more than equal in value the whole of the other portions of the mines, being entirely unworked ground. The remainder of the report referred to the decrease of the late local agent, and the temporary appointment of a local manager; also to the accounts, &c.

The CHAIRMAN then read the report prepared for the meeting by the late Mr. Deane. It enumerated the new drivings on various portions of the mine amounting to over 75 fms., also to clearing and laying tram rails in two of the old levels on the Llechwedd-du lode for a distance of 190 fms., resulting in the opening out of some extremely good ore ground, in addition to the wonderful discovery on the New lode whilst working on the Alfred shaft. After these details, the report went on to say:—

In taking a short review of the work done during the year I can only express regret that circumstances have prevented our completing some of the more important work commenced in the early part of the year—sinking the Llechwedd-du engine-shaft down to 125, and driving the 125, west of Bradford shaft, through to the engine-shaft. Looking at the amount of ore ground wrought from 105 upwards there is every prospect that if this shaft were continued to 125, and the level communicated, a large area of good-paying ground would be opened up. As to the new lode, seeing the great results already attained with such limited working, I can only suggest that we should open it out with vigour, for certainly it is the most profitable ground by far of any we have had in the mines. Machinery is all in good working order, and I am glad to state that we have completed the new sheds over dressing-floors and house for steam-engine. These things have of necessity added materially to our expenses during the year, but the money has been well expended.

The CHAIRMAN said that they had that day received a highly favourable report from Capt. Evans, who, on the death of Mr. Deane, had been placed temporarily in that gentleman's position. They only wanted a little open weather down there, and then they would be able to get at the ore. There was plenty of ore, but they had not been able to touch it on account of the frost. Their local agent, Mr. Deane, recently died, and upon being apprised of the circumstances he (the Chairman) at once wrote to Capt. Evans and told him to take charge pending the decision of the board as to what was to be done. Captain Evans had been on the mine very many years, had been underground captain, knew every inch of the property, and he thought that he was the best man they could have to succeed Mr. Deane—at any rate for the present. The week following Mr. Deane's death was pay-sheet week, and it was a very long cost-sheet, but Capt. Evans worked it out in first-rate style, and the men had their pay as usual. Therefore, the mine had not lost through the sudden occurrence, and it had afforded the directors an opportunity of re-arranging the staff, and putting things on a more economical footing. There was a loss on the working last year, but if they took off the 700l. that had been made. There had really been a profit on the working, but there had been a loss on the amount which they had to lay out on unprofitable people. Mr. Deane's pay was about 150l. a year, besides house, coal, and candles. T. day he had seen a private report just received by one of his co-directors from a gentleman who was travelling through Wales, and who asked permission to look at Great Dyffle. This gentleman, who was a civil engineer, had sent to a mutual friend a short sketch of the mine, and the following is an extract from what he stated:—

Dyffle New Lode: A trial of this lode has only recently been made, and, in fact, may be said to be only as yet in its experimental stage. In the main adit this lode is cut through, but such slight indications were visible that no notice appears to have been taken of it, and only within the last few weeks attention has been directed to it. The small string crossing the adit has been followed upwards, and within 2 fms. ore was discovered, which increased as the work advanced, and at a height of 2 fms. from the top of the adit a rib of nearly solid ore from 4 to 9 in. wide is found. Further opening out of this lode is in progress, and should it be found to continue the value of the mine will be greatly

## BRIEF DESCRIPTION OF MINERAL PROPERTIES.

No. of Separate properties.	Acres.	Description.
340	2	Mount Lyndhurst and Burr Mines. At the former there are seven lodes containing ore of first-class quality: 72 tons of ore sold averaged 39 per cent., and realised £1572 12s. 2d. when the price of copper was at its lowest. The latter mine is reported to be "a wonderful place." Captain Tonkin, in his evidence given to the Parliamentary Committee, states—"There is the finest show of copper that ever I have seen since I have been in existence. The copper there is 40 yards wide and 200 yards long. You could load as many drays as you think proper with ore of 25 per cent. without dressing; and which, if dressed, could be brought up to 45 or 50 per cent. I believe it will be the best mine in South Australia."
722	8	Separate Mineral Discoveries (within seven miles of the above). "Solid grey ore in one lode 15 in. wide." Also native or malleable copper in one lode: 6 tons from another produced 32½ per cent. The ore from others assayed as much as 70 per cent. At the Vocovocanna Mine Captain Hemming reports—"There is a well defined north and south lode on the surface of this property, and rich grey ore has been raised therefrom. I broke out myself 12 cwt. of ore when examining it, and consider it one of the very excellent mineral properties in the North. No work has been done. The lode is showing for about 200 yards. At the Gammon Creek Mine the same authority reports:—"The lode is a well defined one, showing on the surface for about three chains in length for an average width of 4 ft. The ore can be raised with very little trouble, and scarcely any dressing will be required. It will be found that this section is of immense value if my experience and the appearance of the ore and matrix are any guide."
514	6	Mount Rose, Mr. A. Frost, in his evidence to the Government Committee, describes as being "an extraordinary good mine." One lode is stated to be "3 ft. wide, of solid black and grey ore;" "another 18 in. wide, of fine ore." The ore sold by Messrs. Bath, of Swansea, produced 28½ per cent. Captain Prisk stated to the committee—"I could go and raise 4 to 500 tons right off the little ground I have opened in six months with six men, of 20 per cent. ore." And six other mines (within 12 miles), from one of which it is stated rocks of rich copper ore from ½ to 1 cwt. can be easily broken.
120	2	Constitution Hill Mines. Captain Hemming reports—"True lodes containing good copper. I think very favourably of this mine."
320	2	Mooloolooloo and South Mooloolooloo Mines. Captain Price reports—"Large quantities of rich ore can be raised here at a nominal cost. One lode is about 2 ft. 8 in. wide, 2 ft. of which is composed of real good ore, imbedded in a fine ochreous gossan, the whole of which as broken would yield 30 per cent. fine copper, but could be dressed up to 40 per cent. I recommend the erection of two smelting furnaces, wood for smelting being plentiful. The ore is so abundant that 16 miners could raise ore enough to keep the furnaces in full work, and open up the mine for working on a large scale."
280	4	Separate discoveries near Sliding Rock. The ore sold realised 35 per cent.
480	2	Warriorita and John Bull Mines. 50 tons of ore without dressing sold to the English and Australian Copper Company yielded 45 per cent.
160	2	Mount Hemming Mine, considered valuable; medium ores. And seven other separate discoveries near Warriorita and Patavarta Mines.
1040	13	Patavarta Mine North and Malones Mines. Ore assays 41½ per cent. "Five men could raise 30 tons in a month."
		Various separate Mineral Grants, within eight miles of the Blinman Mine, including Davison's, Mount Elkington, and Wheel Friendship Mines. All rich in mineral. Messrs. Carbis and Deane report at the Yootoomookina Mine "a good lode of copper ore running N. and S., about 5 ft. in width, and can be traced at surface for nearly a mile. It is a nice gossany lode, with about 15 in. of good ore existing in it. We do not hesitate to recommend it as a safe and paying mining venture."
320	5	Mount Emily and Mallee Hut Mines, and three other Properties. Captain Terrell reports "a lode, 3 ft. wide, of solid ore, of good percentage. No doubt it will make a splendid property."
280	4	Separate Mineral Grants between Wilpena and Mermerna Gap. Very little work done, but good samples of ore taken.
1120	12	Separate Mineral Grants. The Wirawilka, Mount Craig, Wyaka, Napoleon, Kirewan, and other Mines. All mines of great promise, producing green carbonate, grey ores, and malachite. Ore has been sold from most of these mines to the English and Australian Copper Company.
		The Wyaka Mine delivered 99 tons to them, and some of the ore was settled at 44 per cent.
500	1	Wirtaweenna Mines. Captain Hemming reports—"A well-defined lode, 4 to 5 ft. wide on surface, containing grey ore and green carbonates, and a branch of good grey ore, 4 to 6 in. in thickness. I consider this a very valuable property; there is at least 30 tons of ore of medium quality on the surface waiting to be dressed."
500	7	Separate Mineral Discoveries between Wirtaweenna and Lake Torrens Mines. "Magnificent samples of ore." Captain Terrell reports the latter mine "to be a splendid property; the lode can be traced for the whole 200 acres in length; in some places the back of the lode is 6 ft. wide, of good copper ore."
500	2	Beltana Mines. Considered will make rich mines.
400	2	Kanyaka and McConville's Mines. "Ground easy to work. 25s. to 35s. per fathom paid for sinking or driving. Average percentage of ore, 20 to 30." "Lodes, 2 ft. to 30 in. wide." Nine tons of ore assayed 27½ per cent."
240	1	The Blinman Mine, before mentioned. Mr. Fivesh, in his evidence to the Parliamentary Committee, states—"We could send, I think, from Blinman alone 1000 tons a month."

8796 Acres, 83 Separate Mineral Properties



easily increased. It is worked, and such a quantity of ore as is there found will unquestionably be very profitable. The close proximity of this abundance of ore to the adit in which there were such slight indications is a remarkable example of the peculiar character of mining enterprise.

This was a wonderfully favourable report from a gentleman whom he had only seen once when he came to the office to ask for permission to see the property. The CHAIRMAN, in reply to a question, said that last year the company sold 315 tons, at an average of 10s. 12s. 4d. per ton. They were getting about the same price now. It went up to 13s. about this time last year, and afterwards dropped to 9s. 10s. This company got about the highest price of any sampling in the market—(hear, hear)—a better price than Tankerville, Roman Gravel, and other mines of a similar character.

Mr. FORD moved that the report and accounts be received and adopted. Mr. PRESTON seconded the resolution, which was carried. On the motion of Mr. FIELD, seconded by Mr. TREBLE, Capt. Alfred and Mr. Browne, were re-elected directors. The CHAIRMAN said he had received a letter from Mr. Browne, expressing regret that indisposition prevented him from attending the meeting. On the motion of Mr. BENNETT, seconded by Mr. TREBLE, Mr. Kemp was also re-elected auditor.

The CHAIRMAN said the fees of the directors were entered at 30s. He might mention that none of the directors had taken any of the fees in cash; he had himself drawn 50s. to meet travelling expenses of the past two years, but all the remainder of the remuneration, both his own and that of other directors, had been taken in shares of the company—that was to say, each director had received a cheque for the amount to which he was entitled, and at once paid it into the coffers of the company, taking shares to the same amount. He mentioned this because the directors did not think it right to take money out of the concern until it was showing a good profit. (Hear, hear.)

Mr. FORD said there could be no doubt whatever that the mine was a thoroughly good and sound one, and any quantity of lead could be got and easily worked, but money was wanted to work it. The CHAIRMAN said they really wanted a little spare capital for thoroughly working the great New lode in the adit level, which was the richest and most inexpensive part of the mine to work. He believed one piece of that ground was worth fully as much as Cobden and Bright had got out of the part worked when they held a lease of the mines some years since. The company really possessed a new mine, a new shaft, and, in fact, new everything, and what they really wanted was a little more money. But there were so many Indian gold mines now before the public which people put their money into, although they could not go to see them, but took for granted that they were going to get 50 or 100 per cent. He agreed with Mr. Ford that in Great Dyffell the company possessed an excellent property. If they worked the lode which ran from 4 to 12 in. thick of solid lead ore (their late manager advised him that the width in the western end was 12 in.), it would not cost more to work than where they cut it ½ in. thick, but as he had said what they wanted was a little more money to work it thoroughly.

A cordial vote of thanks to the Chairman and directors closed the proceedings.

#### PRINCE OF WALES MINING COMPANY.

A general meeting of shareholders was held at the offices, Gracechurch-street, yesterday.

Mr. J. Y. WATSON, F.G.S., in the chair.

Mr. C. B. PARRY read the notice calling this meeting.

The CHAIRMAN said: Gentlemen, this meeting ought to have been called earlier, but the committee were anxious to see more of the bottom level before calling you together. The expenditure has been heavy in forking the mine, and it is 15 months since the call of 7s. 6d. per share was made. The engine, with the pitwork, &c., has cost 1147l. 14s. 5d.; merchants' bills in connection with buildings, and forking the mines, 1073l. 3s. 10d.; labour 15 months, 2248l. 15s. 7d.; purchase of mine plant, &c., from the old company, 860l.; rent, 30l.; making an outlay of 5359l. 13s. 10d., and showing liabilities over assets of 832l. 14s. 1d. The accounts have been regularly audited by the committee every month. It will be seen by the report that the prospects of the mine are favourable, and for the future the costs of working will be much less. In looking at the Prince of Wales we regard it as something beyond a mere speculation. You must all remember that the mine in the upper levels were exceedingly rich, and paid handsome dividends; then, owing to the smallness of the engine, the mine became flooded in the 90. We have now spent over 5000l. in larger machinery, and in getting out the water, and we hope, and any day the discovery may come, to find a rich course of copper or tin either in the 90 or below it. In the 77 west a hard bar of ground crossed the lode, and made it poor for the time, beyond the bar the lode became very rich again. The same thing is now happening in the 90, the lode passing through the bar is coming into ore, and I should not be surprised any day to hear of a rich course of ore being discovered. The Chairman added that the bills payable were paid yesterday, and old pumps had been sold worth 150l. There were also about 3 tons of tin, which, taken at 40s. per ton, made 120l.

Mr. PARRY then read the following report from the agents:—  
March 3.—In presenting your report for the general meeting on Friday next, I may just say that as it will include a period from December, 1879, it must be brief—to detail the various work done would be too long. We re-started by taking out the old engine, taking down the old house, which was small and very weak, took out foundation for a larger and stronger house, to build which we purchased, took down, and carried the stone of the Good Luck engine-house; in addition to the stone of both houses, we had to get over 100 tons from the quarry to complete the new strong engine-house, boiler house, flues, and stack, which are detached. We repaired the old buildings and houses, which were in ruins, account-house, smith's and carpenter's shops, material-house, crusher-house, steam-whim and boiler-house, and built new explosive store. We erected a strong and powerful engine; and here I would remark that though it is not new, it is so nicely adjusted in all its parts that it does its work with equal economy to any new one. We repaired the winding-engine and boiler, put up a new steam capstan, shears, and whim, on each of which we have a new strong wire rope. In forking we had to cut down the engine-shaft in several places, in order to replace the old pitwork with new, large, and stronger work; put up a new strong balance-bob, fixed new pitworks, waterways, footways, doors in capstan-shaft, divided and eased the shaft from surface to the 90; also made a new footway on the course of the lode from the 30 to the 90, cleared and repaired adit and other levels, made tram-roads both at surface and underground, made new tram-waggons (the old ones all being corroded with the strong copper water). We cleared the 90 of stuff which was filled through the shaft and winzes to the 77 nearly. In the 90 east, which is 57 fms. east of engine-shaft, we have driven 5 fms. on a lode from 2 to 3 ft. wide, and west from 10l. to 15l. per fathom; north 12l. per fathom for tin. We are daily expecting to cut a cross-course in this end, on which I would advise to put up a rise, to ventilate the end and drain the ground between this and the 77, where there is a very good lode gone down in the bottom, but cannot be worked in consequence of the water. In the 90 west, which is 58 fms. from shaft, we have driven 4 fms., in which the lode has been small by reason of a very hard bar of ground, which appears to have crossed the end and disordered the lode; the same is to be seen in the 77, where it had the same effect on the lode, and which was very rich at the west of it for a considerable distance, and it is generally believed it will be equally productive in the 90; and I am pleased to say the lode is fast improving the last day or two, being now 2 ft. wide, producing rich tin and copper ore, and very wet, which is a very good indication. We have two tribute pitches in the back of this level, working by six men, at 10s. in 12, looking well; one in back of the 77, east of shaft, by three men, at 12s.; one in back of the 50 west, and one in back of the 40, by two men, each at 14s. in 12.—Good Luck: We cleared and repaired the deep adit level about 100 fms; collared, repaired, put in foot-way, eased and divided the Good Luck shaft from the surface to the 42, or deep adit level; ventilated this level on the great tin lode by spilling down through old shafts from the 28 or level above; driven the deep adit cross-cut north from Good Luck tin lode 33 fms. to the 90, and opened out new pits, and slopes on the lode, which is a very large, kindly lode, producing good tin stuff, the sloping of which can be resumed when required; estimate of copper ore raised, 30 tons of average quality; tin, 4 tons. We have now ten men busily engaged cutting ground at the 90, south side of shaft, to enable us to sink below at the proper dip or underlay towards the lode, and shorten cross-cuts at deeper levels. I would recommend the pushing this work with a full pare of men as fast as possible, so as to reach the lode at the 102 in the least possible time, which probably may take ten months, and cost 450l. In conclusion, I beg to say that the productiveness of the lode, as far as is wrought on in depth—which was as far as possibly could be done with the old machinery and the character and value of the lode in the bottom of the mine—is a sufficient warrant, with the new, powerful and efficient machinery erected, to develop the lode; deeper levels returns could be made in the mean time, if not fully, very considerably assist paying cost, and I do think, if properly and vigorously carried out, success will be realised.—S. ROBERTS

Mr. PARRY also read the following report from Capt. Rowe, manager of Wheal Orebor:—

March 3.—I duly received your letter of the 28th ult., and have since visited the mine and thoroughly discussed the following particulars with your agent: I find the necessary preparations for sinking the engine-shaft on a direct angle of the lode below the 90 progressing very satisfactorily, with a full staff of men, and the old "dam" in the 50 fm. level cross-cut let down, and the ground in connection with the lode and cross-courses gradually draining, which will facilitate the operations in opening out the lode below the 77 on the rich tin ground. The lode in the 90 fm. levels both east and west are improving, with fine stones of ore and tin, the values of which will be given in the official report for the meeting. The sloping ground in the back of the 90 west (now worked on tribute) is producing large rocks of rich quality tinstone, mixed with copper ore, showing the appearance of large quantities of tin ground being in reserve. Consequently no time should be lost in making the necessary preparations to increase your stamping power, and readjust the stamping engine and boiler, dressing-floors, &c., which will not be a very expensive matter to carry out to work with increased economy. In looking over the present position of your property, with a powerful 50 in. pumping-engine and suitable pitwork to match, for developing the mine to any required depth, with pretty nearly 2000l. worth of valuable work done, in driving the 90 fm. level over 100 fms. with pretty nearly all the ore "standing" to the 77 above (which could not be taken away by the former workers in consequence of the inefficient pumping power to keep the mine drained). Taking this view of the matter, with the engine-shaft shortly going down to strike out a deeper level, I am inclined to think that the present prospects before the shareholders are exceedingly cheerful, and that there is in this mine a great future before them.—GEORGE ROWE

The CHAIRMAN said they had spent a good deal of money and obtained good results, and he expected every day to hear of a good discovery in the 90. They were returning both tin and copper.

A SHAREHOLDER, who said he came from the neighbourhood, said the shareholders would be glad to hear that in the district the Prince of Wales was looked upon as the best mine within many miles of Callington. It was very near the Oltters, and Capt. Giffard, who knew the mine intimately, had informed him that they would have better lead downward than above. There was no doubt the mine was attracting a great deal of attention in the neighbourhood, since it had been determined to sink as rapidly as possible.

On the motion of Mr. WAGSTAFF, seconded by Mr. WILLIAMS, the accounts were passed, and the reports adopted.

A call of 2s. 6d. per share was then made, discount of 5 per cent. being allowed on all payment made before March 25.

The CHAIRMAN said he hoped this would enable them to put the mine in a paying position.

A vote of thanks to the Chairman and directors closed the proceedings; the CHAIRMAN, in returning thanks, remarking that he was Chairman of the mine when it paid good dividends years ago, and he hoped to live to take the chair and pay them again.

FLAGSTAFF DISTRICT SILVER MINING COMPANY.—We are not surprised to learn that a very general response is being made on the part of share and debenture holders in the Flagstaff Company to the offer tendered them of three new fully-paid shares at the price of 5s. per share in respect of each old share held, and one new fully-paid share at the price of 5s. for each 17. of debentures—principal and interest—due. There would seem to be no imaginable reason

why any holder of either shares or debentures should not immediately embrace a preferential offer so exceptional—an offer which will possess him of shares in a new and promising company at just one-fourth the price at which these same shares are otherwise to be at once disposed of to the general public. It should be borne in mind also that the time allowed for these preferential applications expires on Wednesday next (March 9), and it is understood that no extension whatever of the time beyond Wednesday will be granted.

RIO TINTO.—Numbers are announced of the bonds of the new 5 per cent. issue, drawn to be paid off April 1.

Mr. John H. Tilly (Tilly and Co.) chartered accountant, Queen Victoria-street, has been appointed provisional official liquidator of the Moray Firth Mining Company.

## The Coed-y-Fedw and Pant-y-Buarth Lead Company, Limited.

INCORPORATED UNDER THE COMPANIES ACTS, 1862 AND 1867.

CAPITAL, £25,000, IN 25,000 SHARES OF £1 EACH.

Payable 10s. per share upon application, and 5s. upon allotment, the remaining 5s. by calls of 2s. 6d. each within three months from date of allotment (if required). Discount allowed at the rate of 6 per cent. to applicants desiring to pay up in full on allotment.

#### DIRECTORS.

JOHN CLAXTON ADDISON (Capt.), 17, Lansdowne Crescent, Notting Hill, London, W. (Director of Great Holway Lead Company, Limited).

JOHN GURNEY KELLEY BURT, Esq., Lee, Kent.

THOMAS F. GAMBLE, Esq., Ealing, W.

DAVID G. KENNEDY, Esq., M.D., 83, Jamaica Road, Bermondsey.

(Mr. EDWARD JOHN BARTLETT, F.R.G.S., will join the Board after the Allotment of Shares).

BANKERS—THE CITY BANK (LIMITED), Threadneedle Street, E.C.

SECRETARY—Mr. JOSEPH WOOD.

OFFICES,—30, GREAT SAINT HELENS, LONDON, E.C.

#### PROSPECTUS.

This company has been formed to acquire and work two extensive and valuable mineral properties, under the exceptionally favourable conditions hereinafter set forth under their respective headings.

##### COED-Y-FEDW.

The Coed-y-Fedw section of the property embraces a considerable tract of mineral country, most favourably situated for the conduct of mining operations, being bounded on the south by the famous Maes-y-Safn Mines, and generally surrounded by mineral grants that have produced enormous bodies of lead ore, and which, from time to time, have yielded to the various owners substantial profits, and have even during periods of commercial depression shown remunerative returns.

The most productive channel of ground was always considered, by practical authorities, to lie further northwards than Maes-y-Safn, and to include the Mold Mines, and the Denbighshire Consolidated. The operations of the latter are now affording every indication of a most promising career, but the company possessing such a large tract of ground, and only having facilities for the development of two of the veins traversing it, the directors of the Coed-y-Fedw and Pant-y-Buarth Lead Company have been enabled to secure from the Denbighshire Consolidated the right of mining to the south of its present engine-shaft. It is through the ground thus acquired that the famous Coed-y-Fedw lode passes from east to west. Upon its course several shafts have already been sunk, and one on the western extremity of the lode can at an early date be made available for operations, and suitable machinery erected thereon. From this point of the workings valuable returns of produce were made many years since, but the proprietors being unable to follow the lode in depth in consequence of having no funds with which to erect the machinery necessary for pumping the water, operations were suspended. During the past few years active mining has been so successfully carried on in the immediate vicinity of the Coed-y-Fedw lode that the workings have been drained to a considerable depth, and it is, therefore, reasonable to expect that in a few months after the formation of this company, large and remunerative returns of produce will be made. In addition to the above well-proved vein, there are several other veins of minor importance which traverse the property. The preliminary works are in a forward state towards completion, and hence the least possible delay need be expected in bringing the company into a sound dividend condition.

The salient points of the Coed-y-Fedw portion of property may be taken in detail as follows:—

- 1.—The absence of water rendering the erection of extensive pumping machinery unnecessary.
- 2.—The number of splendid veins traversing the property, the chief one being already proved to be of exceptional value.
- 3.—The already advanced state of development of the property, which justifies the board in anticipating dividends at a very early period.

##### PANT-Y-BUARTH.

This extensive property is situated about 2 miles from the town of Mold, Flint, and is surrounded by some of the richest mines in the district. On the north it is bounded by the Pant-y-Mwyn, on the south by True Blue, and on the east by Vawnog, Gwern-y-Mynydd, and Cat Hole. Its length from east to west is more than 1½ mile, and its average width about 500 yards. Altogether it includes about 230 acres.

There can be no doubt whatever as to the character of the Champion lode which traverses the sett. The surface indications alone amply prove this, being similar to those of Gwern-y-Mynydd, Cat Hole, and Pant-y-Mwyn, all of which have made their mark in the history of the successful mines of North Wales; but, perhaps, the best proof of the value of Pant-y-Buarth lies in the fact that thousands of tons of ore have been extracted from it at shallow points, and these are certain to become more valuable as greater depth is attained. Besides the main lode there are several powerful feeders or strings connected with it, and also a north and south lode which has proved very rich.

The engine-shaft has been sunk in the eastern extremity of the sett to the extent of about 120 yards (a very shallow depth when its geological position is considered), and this is the lowest point yet reached in the working of the mine. At this depth levels have been driven for some distance, east and west, on the course of the lode, and lead has been left in the western forebreast that would pay well for working even at present depressed prices.

Some 250 yards to the west of engine-shaft is the whim-shaft, worked by the present owners, which is down about 100 yards. At this depth they have driven a level west, with the two-fold object of proving the lode at a lower depth than it had previously been worked in this part of the mine, and also of intersecting Rowlands cross lode, which was so productive in the shallow levels. The first object has been partially realised, and a considerable quantity of ore has been obtained in the driving. With regard to the second point, the forebreast of the level is now short of the intersection of the cross lode by about 35 yards. It presents a most promising appearance, the matrix being composed of lead, blende, carbonate of lime, and grey shale, and an early improvement in the yield of ore may be confidently expected. There is also some very nice lead in the roof a few yards back from the forebreast. It is of the utmost importance that this level should be extended further west, as it will unwater the whole of the workings in this direction, being from 30 to 40 yards below them.

With the expenditure of a comparatively small sum of money this part of the property should turn out a great success, and alone make a highly satisfactory return upon the entire capital.

It is desirable that early application for shares should be made to

secure an allotment, as many have been taken up by the directors and their friends.

The directors whilst calling attention to the opinions of practical mining authorities, as annexed, desire to record their belief that seldom has such an opportunity been presented of acquiring valuable properties under such favourable terms.

Prospectuses and full information on application at the offices of the company.

Mr. ABEL FRANCIS and Mr. R. PRINCE report as follows:—

##### COED-Y-FEDW.

This valuable property is bounded on the north by the old Coed Cynric sett to the south by that of the famous Maes-y-Safn, one of the most ancient and productive mines in the Principality, its history dating back centuries, and its monthly sales for years averaging from 100 to 200 tons; and on the east by the flat measures of Jamaica, &c., whose wealth has given to this locality so great a notoriety. The engine-shaft has been sunk to a depth of about 120 yards, and a considerable amount of work has been done in driving out levels at depths of 40, 60, 80, and 100 yards. The 80 level has only to be driven a few yards further before meeting with the run of ore proved in the 60 level, but irrespective of this the immediate prospects here are most encouraging, the end requiring to be driven only about 15 yards before intersecting a cross-lode, where, as is generally the case, valuable deposits of ore are to be found. The lode is undoubtedly a masterly one; it runs parallel to that of Maes-y-Safn, and through exactly the same geological formations, the other characteristics of the two lodes, so far as this one here has been proved, are also identical. The Maes-y-Safn vein in the western measures was only comparatively rich, the ore being to a great extent bunched, its great wealth being found in the eastern ground. The Coed-y-Fedw lode has only been worked in the western measures, its most easterly working being in the 80 level, which is just about entering the richer strata of the east; from the western workings a large quantity of ore has been obtained, it is, therefore, both natural and reasonable to expect far greater results when the more productive ground is worked. We have a very high opinion of this sterling property.

#### SPECIAL REPORTS.

##### COED-Y-FEDW.

July 20, 1880.—I inspected the Coed-y-Fedw sett on the 12th inst., and herewith beg to enclose my report. The property is bounded on the north by the Coed Cynric sett, and on the south by the celebrated Maes-y-Safn, which is well known to all mining gentlemen as having been one of the most ancient and productive mines in the Principality, and on the east are the flat measures of Jamaica, &c. The Coed-y-Fedw lode runs parallel with and through the same geological formations as the lodes of Maes-y-Safn, but have only been partially worked upon in the western measures, where I am informed large quantities of ore have been obtained. In exploring the workings I found the lode to have been extensively worked, evidently in taking out the rich bunches of ore found here, and the lode at this place is well defined, with a northern underlie of about 2 ft. in 1 fm. The matrix of the vein showed all the characteristics of a rich producing lode. The engine-shaft has been sunk to the depth of about 120 yards from surface, and the furthest level driven is about 200 yards, so that it must be approaching the more productive measures where the Maes-y-Safn Mine was made so rich. I would advise the further driving of the level in order to come into this ground and to meet with the run of ore worked upon in the western measures, when you may reasonably expect great results therefrom, as the lode is a masterly one, and showing every indication of productiveness. Some 15 yards or 20 yards east of the present forebreast is to be seen on surface a cross lode or a heave in the main lode in a more vertical position; in either case this indicates a favourable change in the lode and is generally looked forward to as the seat of valuable deposits of ore. In conclusion I beg to say I am pleased with the appearance of the lode and the boldness of its character, and believe you will be able to make a profitable and lasting mine.

H. HOTCHKISS.

##### COED-Y-FEDW.

July 25, 1880.—Having on the above date inspected this property, I beg to hand you my report thereon. The sett has had a valuable acquisition made to it, and is now one of great magnitude, extending over a mile on the course of the principal lode by half-a-mile wide, and surrounded by several of the once most celebrated mines in the district—on the south by the Maes-y-Safn Mine, for a long period renowned for its great productiveness of lead ore, on the east by the Denbighshire Consolidated and other mines, and on the north by Cathole and Gwern-y-Mynydd Mines, all having proved immensely rich for lead ore. The geological formation, carboniferous limestone, and the natural characteristics of the surface, are identical with the above-mentioned and other profitable mines in the neighbourhood. Considerable development has been made upon the Coed-y-Fedw cross-lode, resulting in the return of large quantities of lead ore. The wheel-pit lode is also one of great promise. The engine-shaft has been sunk upon the Coed-y-Fedw lode 120 yards, and is now in good repair. Levels have also been put out east and west, at the bottom of the 100, 80, 60, and 40 yards deep, thereby enhancing the value of the mine in proportion to the work done. The 80 yard level, which has been extended east 200 yards, and within 15 yards to the junction with the cross-lode, on which a shaft has been sunk about 80 yards. The driving of this level to the junction, and the communication of the shaft with the 80, are points of considerable interest, and should have first attention. I would recommend an engine of moderate power to be erected upon the engine-shaft, suitable for pumping and winding; and when the levels are cleared current report states lead ore can at once be raised. The ground is easy for exploring, and the composition of the lodes quite in character with the most productive in the district, and when developed under judicious management I have no doubt will be found equally rich and yield large quantities of lead ore to the company.

W. T. HARRIS.

##### PANT-Y-BUARTH.

Nov. 5, 1880.—The mines were some time since carried on by a few local people who formed themselves into a company, but death having removed some of the leading shareholders the remainder found themselves without sufficient capital to continue the development operations. The sett is a very extensive one, and includes all the lead-bearing measures known in the district, from those of the flat measures in the east, to the most westerly limestone productive formations. It is traversed by one of the champion lodes of the district and several parallel lodes at short distances, also a powerful cross-lode. The object of the old company was to continue the 100 yards level west to Rowlands's shaft to intersect on the rise the lead-bearing measures lying below the unproductive strata through which the level had been driven, and to strike the cross-lode, intersected and proved by the shaft in question, and reported to be showing a fine body of ore. The forebreast of the level is now within 30 yards of this, and as the ground is exactly similar to that which has been so productive in the Pant-y-Mwyn Mines, there is every reason to predict most profitable results from a continuation of the level west. Cross-cuts should also be thrown out from this level to intersect the parallel lodes, which there is every reason to believe contain fine courses of ore, as they are in the same measures as those traversed by the main lode. The chief operations of the mine were carried on in the eastern end, in what may be called the second or intermediate bearing formation, but to a depth only of 120 yards. Immense quantities of lead were produced, however, and I would strongly recommend trials here, either by continuing the levels east or by sinking below the 120. Cross-cuts to intersect the parallel lodes might also be thrown out to advantage. I know of no single instance of a strong masterly lode like the one you have at Pant-y-Buarth, and am willing to prove rich in similar measures. The Phyd-y-Mwyn lode yielded 140,000l. of ore in such formations, and the Gwern-y-Mynydd, Hendre, and other lodes of the district have also proved immensely rich. There is a splendid field open also in the flat measures, which have not yet been touched, but I may state that elsewhere almost all the work done by the old company was of a preparatory nature, so that the trials I have suggested could be made at a comparatively small cost, and I am certain with satisfactory results.

JOHN LLOYD.



# THE EAST CHILLATON AND ATWAY MANGANESE AND FELSTONE COMPANY

(LIMITED).

INCORPORATED WITH LIMITED LIABILITY UNDER THE COMPANIES ACTS, 1862, 1867, AND 1877.

CAPITAL £50,000, IN 25,000 SHARES OF £2 EACH.

Deposit payable upon application 5s. per Share, and upon allotment 5s. per Share.

It is not intended to make calls at less intervals than three months, or of more than 10s. each.

The Company's valuable Properties have been carefully surveyed and Reported upon by the following Mining Authorities, and copies of their full and exhaustive Reports can be had upon application:—

T. RICKARD, Esq., M.E. (of London), concludes a very comprehensive report—"These mines occupy the very centre of the best manganese district in Great Britain. I know of no safer or better kind of mining enterprise than manganese works such as these properties form a field for."  
CAPT. WILLIAM HOOPER (of the South Devon United Mines) reports—"I would remark that looking at the large quantity of manganese that has been sold from the small amount of ground taken away, is a proof to me that it fairly and vigorously prosecuted, the mine will prove a great success. Such facilities for working a mine and exporting the produce are rarely met with."  
CAPT. W. DODGE (of the Cornwall Great Consols Mine)—"The set adjoins the Langstone Mine on the east, and the Monkstone Mine on the south, both having returned immense quantities of manganese, whilst on the west is situated the celebrated Hogston Mines, which have lately returned such large profits to the owners. Seeing the immense quantities of manganese returned from shallow workings, and being in the vicinity of the other productive mines referred to, I see no reason why this property should not be equally valuable as the others in the immediate neighbourhood."  
R. WALTERS, Esq. (of Tavistock)—"If fairly and judiciously prosecuted you will have one of the richest and most profitable manganese mines in the district;" and, in conclusion states, "I cannot help congratulating you on possessing such highly valuable, and, indeed, rich manganese properties."  
W. GRAHAM, Esq., Surveyor (of London)—"The property, if properly worked, cannot fail to render the most satisfactory results. It contains all the elements of success."

## DIRECTORS.

WILLIAM ARTHUR, Esq. (late of Arthur and CO., Glasgow, Director of the Bodidris Lead Mining Company, Limited), 108, Holland Road, Kensington, W.  
ALBERT J. ATKEY, Esq. (Messrs. Atkey and Co., Steel and Metal Merchants, Contractors to H. M. Government), 33, Cornhill, London, E.C.  
F. PICKFORD, Esq., (late Director of the Lady Bertha Mining Company, Limited), Selwood House, Gore Road, London, E.  
HENRY HEYWOOD, Esq., C.E., Riversdale, Cardiff.  
WILLIAM PASK, Esq., Manganese and Iron Merchant, 1, Basinghall Street, London, E.C.

BANKERS—The STANDARD BANK OF LONDON (Limited), 29, Lombard Street, London, E.C.

SOLICITORS—Messrs. PILGRIM and PHILLIPS, Church Court, Lothbury, London, E.C.

BROKERS—Messrs. CARMICHAEL BROTHERS, 13, Copthall Court, London, E.C.

CONSULTING ENGINEERS—Messrs. RICKARD BROTHERS, Mining Engineers, 35, Queen Victoria Street, London, E.C.

AUDITORS—Messrs. T. S. EVANS and CO., Public Accountants, 5 and 6, Bucklersbury, London, E.C.

SECRETARY AND OFFICES—Mr. J. ROWLANDS SPENCER, 5, AUSTINFRIARS, LONDON, E.C.

## ABRIDGED PROSPECTUS.

This company has been formed for the purpose of purchasing and working the well-known and rich manganese mines of Bowden Dow, situate near Tavistock, in Devonshire, and of Langore, and the celebrated Wavy Mines, near Lanneston, in Cornwall.

The vendors have during the last few years spent a large sum of money in opening up the Bowden Down and Langore Mines, and have raised and sold from Bowden Down considerable quantities of the richest quality manganese and manganiferous iron ore. In this latter mine a large quantity of manganese, estimated at upwards of 1000 tons, is now laid open to view, and may be raised and sold, so that profitable work can be at once entered upon. At Langore also a large lode of manganese is now exposed to view, and can be at once broken and prepared for market.

It is, however, necessary in order to work these mines in the most expeditious and economical manner, to introduce capital for the purpose of improving the present arrangements for developing the property, and also to erect the most improved appliances for the dressing of the products.

Full information will be found in the valuable reports annexed of Mr. T. Rickard, and of Messrs. B. Walter, C.E., W. Dodge, W. Hooper, W. Graham, to which special attention is directed, also to the plan showing the position of the properties. They are unanimous in pronouncing the company's properties as most valuable, comprising the best manganese deposits in the district. There is also on one portion of the property a valuable bed of felstone, specially adapted for the production of vitrified non-absorbent blue bricks, white enamel bricks, and terra cotta work, the manufacture of which articles will form a very profitable branch of the company's business.

It should also be remembered that at the present time there is an increasing demand for manganese, which is extensively used for the manufacture of steel, and a variety of other purposes, and the company have received offers of contracts for large supplies. Responsible parties have also guaranteed the sale of all the white and blue bricks which may be made, so that the position of the company is removed from the class of uncertain and merely speculative enterprises.

A specially important and favourable feature in connection with the Company's property is the fact that all their mines will be entirely drained by the level adits, and consequently require no expensive pumping apparatus, and though it is stated that an engine and pump will be required to construct a shaft of sufficient depth at the Wavy Mine, this will be met by a deep adit which will afterwards thoroughly drain the mine, and afford a means of exit for the ore.

The agreed price to be paid for the leases, plant, machinery, &c., of the whole of these important properties is £20,000, namely £5000 in cash, to recoup the vendors some of the capital expended in opening up the property, and the remainder in fully paid-up shares of the company.

It appears from careful estimates that large profits will be made by the company on the returns of manganese alone amounting to about 10,000l. per annum.

ANALYSIS OF SAMPLE OF MANGANESE FROM BOWDEN DOW.

Peroxide of manganese	81.29	51.38	Metallic	0.52
Oxides of iron	7.24	5.06	Moisture	0.61
Alumina	3.22		Silica	5.27
Lime	1.68			100.00
Sulphur	0.17			

(Signed) ROBERT OXLAND, F.C.S.

ANALYSIS OF MANGANIFEROUS IRON ORES.

Metallic manganese	22.64	Silica	10.86
Do, Iron	31.66	Phosphorus	Traces.
Calced carbonate	2.88	Sulphur	0.25
Magnesia	1.01	Oxygen, moisture, &c.	30.70

(Signed) M. H. COCHRANE, Cardiff.

IRON ORE CERTIFICATE FROM CARGO AT TYNE DOCKS.

Metallic iron (when dried at 212 Fahr.)	28.2
Ditto manganese	17.18
Moisture	5.1

(Signed) JOHN PATTERSON, Newcastle-on-Tyne.

Applications for shares should be made on the accompanying form, and forwarded to the bankers or the secretary of the company, 5, Austinfriars, Old Broad-street, London, E.C., together with a deposit of 5s. per share. Where no allotment is made the deposit will be returned in full.

The Memorandum and Articles of Association can be seen upon application to the secretary at the offices of the company, where also prospectuses and forms of application for shares can be obtained.

## THE EAST CHILLATON AND ATWAY MANGANESE AND FELSTONE COMPANY.

Prominent among reasons for the formation of this company is the fact well known to those in the trade that manganese, with its rapidly extending area of consumption, and the superficial nature of the deposits which are the sources of the supply, is pre-eminently the ore of the future; and, though it will fluctuate in value with the fluctuation in the price of iron, yet its demand will remain commensurate with that of steel.

Formerly manganese was confined in its uses to purely chemical purposes, and for such uses the mines in the Chillaton district commanded the market, until about 30 years ago, when the price was greatly depressed by imports from Germany. Up to that time very large fortunes were made in the ports from Germany. Up to that time very large fortunes were made in the ports from Germany. Up to that time very large fortunes were made in the ports from Germany.

It is worthy of special remark that there has been some of the most profitable mining in a neighbouring mine to that of Bowden Down (Chillaton Hogston Mines, Messrs. Simons Brothers), from which it is calculated that clear profits of over 30,000l. a-year have been made. The Bowden Hill deposit yields equally good ore, and so does Wavy, with that of the Chillaton Mines, worked so successfully for the last ten years, and continuing to work.

In the opinion of the experienced manager of the Chillaton Mines, the manganese properties selected for this company are of a first-class character, and it is greatly under the guidance of this manager that they have been selected. Speaking of Wavy, Bowden Hill, and Bowden Down, this gentleman, as well as the manager of another mine (Monkstone), give it as their opinion that it is ground scarcely inferior to that of Chillaton, and, therefore, to none in the county.

The reason why the Chillaton property has been worked is said to be, and no doubt is, that whereas all the other mines in the district required pumping machinery or expensive work in adit drainage, this piece of ground, on the contrary, was already drained by adits, and has continued to work without the intervention of pumping machinery. A very important circumstance, when as formerly the working was intermittent. To drain Bowden Hill and Bowden Down, and to provide for taking away the ore in an efficient manner, expensive work was undertaken, which in the case of Bowden Down is complete, giving a piece of lode to the depth of 16 fms., and rendering available for immediate extraction a large quantity—probably some thousands of tons of ore. The tunnel begun at Bowden Hill, which has attained a length of 96 fms., will have to be driven 100 fms. further, which done this mine will be unwatered 20 to 30 fms. below the present bottom—a good depth for manganese—and every facility will be offered for taking away the rich deposit of ore known to exist there. Further, this tunnel will effect the drainage of the adjoining mine of Bowden Down to a depth of 40 fms. below the present bottom, and provide there also the means of working the run of ore which the present shallow adit drainage has proved. It is estimated that this piece of work will take somewhat more than a year to complete, but it is expected that other lodes will be intersected in the interval between the present end and the main lode: 800l. and about a year of time, therefore, will be necessary to complete this important piece of work, by which the mine will be effectually drained, while it will lay open a large area of proved rich ground; it will also provide the means of taking away the ore to the best possible advantage. The ore of both the mines will be conveyed through this tunnel. The dressing floors will be placed at its mouth, and hard by the South Devon Railway, 24 miles of carriage by which railway will place the ore alongside ship at Plymouth.

The position of these mines henceforward, with their ore deposits thus laid open are free from all difficulty with water, furnished with good dressing floors, without the intervention of expensive cartage as formerly, and having close by the floors a railway by which to reach the market, will be so much improved as compared with the circumstances under which they formerly worked that these mines may be considered to start under the most favourable conditions.

NEW WHEEL LEISURE.—This property is situated near Bolingey, in the parish of Perranzabuloe. Here Mr. N. Hosking and one or two other gentlemen have done good work in clearing adits, shaft, &c., and are likely to be well rewarded for their pluck and outlay, as they have found a lode in the 8 fathom level 6 ft. wide and worth for tin (according to stuff they have raised and sampled from it) fully 20l. per fathom. Mining in this neighbourhood is beginning to look up again and it is likely that the good old days will return again similar to those when Wheel Leisure and Perran Great St. George (on parallel lodes to those of New Wheel Leisure) gave hundreds of thousands of pounds to the fortunate shareholders.

# The Flagstaff District Silver Mining Company, Limited.

INCORPORATED UNDER THE COMPANIES ACTS, 1862 TO 1880.

CAPITAL £160,000, IN 160,000 SHARES OF £1 EACH.

## DIRECTORS.

Professor M. C. VINCENT, 127, Strand, W.C.  
W. H. BENNETT, Esq., 17, Talbot Road, Bayswater, W.  
G. BURNELL, Esq., Rook's Nest, Banstead, Surrey.  
A. MUNKITTRICK, Esq., 32, West Cromwell Road, South Kensington, S.W.  
J. V. SMEDLEY, Esq., Oxford and Cambridge Club, Pall Mall, S.W.

BANKERS—Messrs. SMITH, PAYNE, and SMITHS, 1, Lombard Street, E.C.

SOLICITORS—Messrs. LOUSADA and EMANUEL, 15, Austinfriars, E.C.

ALEXANDER KERLY, Esq., 14, Great Winchester Street, E.C.

AUDITORS—Messrs. PRICE, WATERHOUSE, and CO., 44, Gresham Street, E.C.

SECRETARY—CHARLES JAMES CADOGAN, Esq.

OFFICES—20, BUCKLERSBURY, E.C.

The company is formed for the purpose of purchasing and developing the property known as the Flagstaff, Virginia, and South Star and Titus Silver Mines, the greater portion of which was formerly the property of the Flagstaff Silver Mining Company of Utah (Limited), now in liquidation.

The Memorandum of Association contains powers for the company to acquire other mines and interests. This power will be exercised should opportunities occur for doing so with advantage to the company.

The quit claim title of the American Mining Company and that of their President, Mr. McCormick, to the property has, after local investigation and approval by Judge Gilchrist, of Salt Lake City, an American lawyer of high standing, been recently purchased for £27,500 by Prof. M. C. Vincent, late Chairman of the old Flagstaff Company, who has agreed to transfer the same to the present company. The consideration for this transfer is as follows:—

- £27,500 cash, which will be provided out of the moneys remaining to be called up on the undermentioned partly-paid shares, and will be repaid to the combination of capitalists who enabled Prof. Vincent to carry out his purchase.
- The allotment to Prof. Vincent of 11,000 shares, issued as having 18s. per share paid up, and which he proposes transferring to the same body of gentlemen as fully paid shares on their paying up by his direction to the company the remaining 2s. per share.
- The allotment to Prof. Vincent of 5000 fully paid shares.
- The allotment to Prof. Vincent of 134,000 shares, issued as having 15s. per share paid up, and which he proposes selling as fully paid shares, giving a preference to the applications

of shareholders and debenture holders in the old company who are to pay the price of 5s. per fully paid share by his direction to the present company. Prof. Vincent further proposes offering to the public, at the price of £1 per fully paid share, any such shares as are not taken by the old share and debenture holders.

The company also pay all law costs and expenses (not exceeding £1250) of and incidental to the acquirement of the property, and the transfers of the same from the American Mining Company and Mr. McCormick to Prof. Vincent, and from him to the company. The amount of the 2s. and 5s. per share respectively remaining to be called up on the 11,000 and the 134,000 shares will provide sufficient to pay the £27,500 cash and the expenses, and will leave a balance towards working the property, independently of the remaining 10,000 shares unissued.

Prof. Vincent's knowledge of the property, and his prolonged efforts in the interests of the share and debenture holders in the old company, eminently qualify him for a seat at the board, and his name will accordingly be found in the list of the directorate.

The following agreements have been entered into (copies of which, with the Memorandum and Articles of Association, may be seen at the offices of the company, or of the solicitors to the company):—An agreement dated 2nd December, 1880, made between M. C. Vincent of the one part, and John Campin Newman and 33 other persons, whose signatures are appended to the said agreement, of the other part. An agreement dated 17th January, 1881, between the said M. C. Vincent of the one part, and Charles James Cadogan, trustee for the company, of the other part, and all applicants for shares will be taken to have notice of the contents of both those agreements.



## Mining Correspondence.

## BRITISH MINES.

**ASHETON.**—J. Garland, March 2: The 60, east of boundary shaft, was driven last month 3 fms. 7 in.; the lode is about 2 ft. wide, and yields irregularly good blende and occasional stones of lead ore; the driving has been reset to four men, at 6l. per fathom. The 92, east of boundary shaft, was driven 1 fm. 1 ft. 3 in.; the lode is 2½ ft. wide, and contains spots of lead ore; the end has been reset for 2 fms., at 8l. per fathom, to four men.

**BEDFORD UNITED.**—R. Goldworthy, March 2: Bridge Lode: Good progress is making in sinking McCallan's engine-shaft. The lode is 5 ft. wide, and worth 20l. per fathom—a very fine, promising lode. North Lode: The lode in the 127 east is still worth 20l. per fathom. No change to notice in any other part of the mine.

**BELOWDA.**—J. Brokenshire, March 3: Our work at surface and underground is going on satisfactorily. We are driving on a very promising branch of ore in the cross-course intersecting Webb's lode, in the 16 fathom level, and have stamped some good work from this point. By continuing on this cross-course we shall very shortly intersect other lodes, and thus open up the mine in depth, as is so advisable. We are clearing the ground at the mouth of the deep Bryn Roydon adit, with a view to commencing to push on there to open up our lodes at a still greater depth; this will give us quite 60 fathoms of backs, and is a work much to be recommended.

**BLUE HILLS.**—S. Bennetts, R. Harris, Feb. 26: The Pink lode in the 80 east end is worth 6l. to 7l. per fathom. The north lode in the 82 east, is looking somewhat more promising, and producing low quality tin-stuff. The west end at this level is worth 10l. per fathom. In the 30 east end the lode is not yet found east of the last cross-course passed through.

**BWLCH UNITED.**—N. Brady, March 1: On reaching here to-day I find there is no alteration in the underground department since one of your board visited the mine and thoroughly inspected the same a few days ago, except that the severe weather has stopped nearly all dressing operations.

**CAMBRIAN.**—W. H. Richards, March 1: Esclair Fraith—Eastern Shaft: The 126 yard level east is much of the same value as last reported; yielding about 2 tons of copper per yard. The winze sinking below the 106 yard level east is producing more lead than we have yet seen it; present value 15 cwt. of lead and copper ores per yard—this winze is opening up good profitable stoping ground. In the 86 east there are good spots of lead in the fore-back, and looking very kindly for improvement. We have commenced a stop in the back of the 70 yard level east; said stop is worth 15 cwt. of copper per yard. Western Shaft: I have put two men to drive a short level into the hill; there being so much overburden on the lode this will be by far the cheapest and most expeditious way of proving it—as seen at present in the bottom of the level the lode has a good appearance, being about 3 ft., principally composed of spar, intermixed with gossan. Our dressing operations are at a complete standstill, owing to the frost and the large quantity of snow that has fallen here; but for this we should have sampled 50 tons of copper ore this week.

**CARNARVON.**—John Roberts, W. Durbly, March 2: The stop in the 36 and 46 is without any particular change of value; the lode is 3 or 4 ft. wide, with patches of copper through it, and on the hanging side there is a branch tolerably pure for 3 or 4 in. wide. At the 90 the lode is improving a little every time we take it down; it is worth now 1½ ton of copper ore per fathom—worth from 12 to 14 cwt. of fine copper. We shall be taking down the lode again on Friday, and will let you know how it looks.

**CATHEDRAL.**—S. Davey, March 2: We are getting on favourably with the clearing of the adit from Rawson's, and hope to have all hands employed going south shortly.

**COURT GRANGE.**—J. G. Green, March 3: I am glad to inform you of an improvement in the lode in the 30 driving east by machine drills. The lode is more compact and solid than for some time past, and is yielding lead ore at the value of 6l. or 7l. per fathom, with every indication of further improvement. We have had interruptions in dressing during the week owing to frost, which now, however, has passed away again. We commence carting the ore to the railway station to-morrow, the 4th inst.

**CROOK BURN.**—Jacob Craig, Feb. 24: The shaft is now down 2 fms. below the Tyne bottom limestone, and we will commence to cross-cut to the vein next week if the roads can be kept open; we can have a supply of coals carted to the mine, if not we will have to stand a few days as the supply we had on hand is exhausted. There was no change in the shaft when they discontinued the sinking, the mineral still keeping the same as last reported.

**D'ERESBY MOUNTAIN.**—J. Roberts, W. Sandoe, March 2: In No. 6 cross-cut have now driven about 8 fathoms, and have no sign as yet of the footwall; there is still a great deal of spar, quartz, and carbonate of lime, with blende and spots of lead. We considered that if the branches on the western side of the stop continued to underlie to this depth as they do in the stop it would require 10 fathoms driving to reach them, but we rather thought that they would strike the footwall some time in taking down a large piece of the hanging wall, which was impossible to secure by timber, or to work the stop to the best advantage whilst it remained, we have started to break lead in a fashion which we could never do before. The stop to the south end of the rise is now looking exceedingly well, considering the large amount of stuff we are at present able to get away, and the stop which we are making ready to take up in the sole of the No. 5 level will also be ready for breaking leadstuff in equally large quantities will be ready by the end of the week, and so we anticipate from time to time to be able to pay our way from these two stops, and any further discovery or discovery of the lode will greatly increase the returns. We are still fully convinced that the main course of lead worked by the old miners is still towards the footwall, and has not been seen by us. The tribute pit at No. 2 is without any change since last month. They are raising nice lead, and will, no doubt make moderate wages at 7l. per ton. As we have now commenced to pull up a great quantity of good leadstuff we have entered fully into the dressing, so as to keep the floors clear of the stuff is drawn up, hand picking as much as we can so as to save the labour of needless crushing.

**DENBIGHSHIRE CONSOLIDATED.**—March 3: In driving westward upon the lode from the 112 north cross-cut we continue to meet with a fair quantity of ore, and after driving another 5 or 6 yards expect to meet with a fresh run of ore dipping towards us, and from which considerable returns may be expected. We are glad to notice a little water is coming out of the end, and there is another rib of spar appearing in the lode to-day. The prospects are very good in this portion of the mine. In driving upon the 112 main lode east we continue meeting with very good lead ore, and the ground is of a most congenial nature. The various rises in the roof of the level continue in good courses of ore. No. 2 has improved since the date of our last report. There is splendid ore down in the bottom of the level, which we have not yet had a chance to stop. In the 79 we have, after sinking 3 or 4 ft. below the level, come to a fresh run of ore, the ground proved in the 66 level above, and have therefore placed the men to see whether the beds in this section of the mine would prove productive, and I am glad to say we have during the last few days obtained some splendid lumps of ore, and it is our belief we are entering upon a great discovery of metal. Dressing-floor: Frost and snow have hindered us terribly, but we have managed to clear up 15 tons of lead ore, which will be sold to-morrow. The prospects of the mine continue to improve, and our returns of lead will increase.

**DEWENT.**—John Morpeth, March 1: Places generally underground present much the same appearance as they did a week ago, when last reported upon. Jeffries Shaft, Middle Vein: The 95 for full width (9 ft.) yields 1½ ton of lead ore. No. 1 stop for a like width, 25 cwt.; No. 2, about 20 cwt. for 10 ft. wide. No. 3 and the flats are standing for a few more days, the men being clearing away the fallen stuff all mixed with lead ore that came down a few weeks ago from off the side of vein and crushed the level. The flats are worth 25 cwt. ore per cubic fathom, and the stop 15 cwt. West of this shaft the stopes are coarse, respectively yield 14, 13, and 13 cwt.; average width of vein about 5 ft. Sun Vein: The stop in the 79 yields 17 cwt.; vein 2 ft. wide. West-garth's Shaft, Middle Vein: The stopes at the 93 east, the 94 east, the 95 east, 15, 14, 13, 12, and 12 cwt. respectively per fathom; average width 3 ft. North Vein: We have finished stripping down the sides at the bottom of great limestone, and to-day we start to drive the 93 west of rise; this level will be on the bed under this sill, and will be carried 7 ft. high by 5 ft. wide; the vein for this height is spotted with lead ore and very kindly spar, but not of commercial value for ore; it is seldom we find ore to any extent so near the bottom of this sill, generally it improves upwards, as is the case in this instance, as shown in the rise. The ground in the 79 is as before slow, and the present stormy weather prevents our working the boring machinery as we could wish, and not being able to get coal across the moors more than is sufficient for the requirements of the large pumping-engine. The 63 cross-cut re-started last week is progressing very well, and the rise over the 74 at the junction of Middle and Burnfield's Haugh vein continues without change—value 17 cwt. We have a vast amount of snow and frost—desperately keen, but during all the severe winter we have had we have been able to keep the mine dry.

**DEVON COPPER AND BLENDE.**—W. Skewis, March 4: Fair progress is now being made in clearing the 50, and by the end of another week we hope to get to the place where the shaft is reported to be crossed over. The 50 on the course of the lode is cleared 25 fms., at which there is a large heap of stuff, and from samples taken this will pay well to work over. I have also been up some of the passes in the back of the 50, and taken samples from the stuff, which proved to be very good for blende, with some copper ore mixed with it. I have also managed to bring to surface some very fine specimens of copper ore which were taken from the stuffs in the back of this level. This week we have also drawn a good pile of work for copper and blende, and hope to get up some more next week. A track is now being laid in the cross-cut from the shaft to the 50, and which, when done, will enable us to clear the levels both 40 and 50—much faster. The pulley stands are now all erected from the whim engine to the shaft, so that now with the assistance of this engine we shall be able to get on much faster with the work.

**DEVON GREAT CONSOLS.**—Isaac Richards, March 3: Wheel Josiah: In the 144, east of Hitchen's shaft, on the south lode, the lode is 3 ft. wide, producing saving work of copper and mundle ores. In Penrose's winze in the bottom of the 144, west of Agnes's shaft, on the south lode, the lode is 2 ft. wide, composed of capel, quartz, peach, mundle, and a little copper ore. Wheel Emma: Inclined Shaft: In the 139, east of Daw's cross-cut, the drive is being continued by the side of the lode for more speedy progress. In the 137 east, east of Friend's cross-cut, the lode is 5 ft. wide, composed of capel, quartz, peach, fluor, prlan, mundle, and some copper ore of good quality. New Shaft, New South Lode: In the 205 west, on the north part of the lode, the lode is 4 ft. wide, composed of capel, quartz, peach, mundle, and a little copper ore. In the 175 east, on the north part of the lode, the lode is 3 ft. wide, and worth 1 ton of copper ore and 2 tons of mundle per fathom. In the 115 east the lode is 4 ft. wide, composed of capel, quartz, peach, and a little of both copper and mundle ores. In the cross-cut at the 100 east the ground is tolerably favourable for progress. In the 90 east the lode is 3 ft. wide, producing a little mundle and copper ore of good quality. Railway Shaft: In the Railway shaft, now down 5 fms. 3 ft. 6 in. below the 190, the ground is not quite so favourable for progress. In the 190 west, on the north part of the lode, the lode is 1½ ft. wide, producing a little copper and mundle ores. In James's winze, in the bottom of the 190 east, the lode is 5 ft. wide, and worth 4 tons of copper ore and 2 tons of mundle per fathom. In the 175 west, on the south part of the lode, the lode is 4 ft. wide, composed of capel, quartz, peach, mundle, and some copper ore of good quality. In Major's rise, in the back of the 175 west, on the north part of the lode, the lode is 4½ ft. wide, and worth 4 tons of copper ore

and 3 tons of mundle per fathom. In the 160 west, on the south part of the lode, the lode is 5 ft. wide, composed of capel, quartz, peach, and produces small quantities of mundle and copper ore. In Short's winze in the bottom of the 160 west, on the north part of the lode, the lode is 4 ft. wide, and worth 3 tons of copper ore and 2 tons of mundle per fathom. In Clarke's winze in the bottom of the 145 west, the lode is 4 ft. wide, producing some very good mundle and a little copper ore. Watson's: In the engine-shaft, now down 4 fms. 5 ft. below the 76, the ground is a little more favourable for progress. In the 76 west the lode is 2 ft. wide, producing a little copper and mundle ores.

**EAST LONG RAKE.**—H. B. Vercoe, March 2: Saturday last being our monthly measuring and setting day the following bargains were let:—The 50 cross-cut to drive south towards Gin lode, stented the month, or cut the lode, at 11l. per fm.; there are six men employed in this end; you will observe I have reduced the price 2l. per fathom, the former price having been 13l. per fathom; the ground in the end indicates our near approach to the lode, and I have not the least doubt when intersected it will prove to be rich. The 5l. to drive east on the course of the middle lode by six men, at 6l. 10s. per fathom; lode about 2 ft. wide, of a very promising appearance, and mixed throughout with lead, the whole being saving stuff for the dressing-floors; I am expecting daily a great improvement in this end every fathom that is being driven towards the junction of this east and west, and the Wagstaff lode. No. 1 pitch in the roof of the 50 fm. level east, by six men, at 7l. per ton of lead ore; the men to wheel, fill, land, and dress at this price. The lode is producing 10 cwt. of lead ore per fathom. No. 2 pitch in the roof of the 50 fm. level east, by four men, at 7l. per ton of lead ore, and the same conditions as No. 1 pitch. The lode produces 14 cwt. of lead ore per fathom. I shall have contractor's price for the removal and fixing engine in a day or two, but the weather being so severe nothing can be done on the surface until a change sets in. We can soon get the engine and machinery at work when we commence, and this is all that is required to prove that the mine is a rich one.

**EAST ROMAN GRAVELS.**—Arthur Waters, March 3: The 109 cross-cut continues to penetrate massive slaty beds characteristic of the district, and I see no reason at present why the lode should not be found productive when intersected. The lode in the 97 south is 3 ft. wide, yielding some good lead ore and blende stuff, and looks like improving shortly. The 8l. going north of junction on the footwall part of the lode is worth 1 ton per fathom. The winze in this level by the side of the lode is down 2 fms. 2 ft. The two stopes in the back of this level—one north and the other south of winze—are together worth 6 tons of ore per fathom. Tribute department as for some time past. We have to-day sampled 40 tons of lead ore for sale next week.

**EAST VAN.**—W. H. Williams, March 3: The cross-cut B B is driven 58 fms. 2 ft. The end at present is driving in similar ground to that which we had in the brook for 5 fms. south of the lode, and contains at times nice spots of lead and lots of water. Cross-cut E E is driven 20 fms. 3 ft. During the past week we have seen a few spots of lead and copper.

**EAST WHEEL BULLER.**—W. Treacy, March 3: There is no particular change in this mine to report since my last.

**EAST WHEEL CREBOR.**—George Rowe, March 2: There is no change to report since the statement given for the past general meeting.

**FORTESEUC (Stannagway).**—J. H. James, T. R. Pryor, March 2: Lode in No. 2 stop, on great causer, is 11 ft. wide, and worth about ½ cwt. of tin to the ton of leadstuff. Lode in No. 3 stop, on the great causer, is 6 ft. wide, containing good work for tin. The lode in No. 4 and No. 1 stopes continue to yield good work for tin. The branch of tin that runs along the flat still continues, and we have some good stamping work from this point. One of the branches is from ½ in. to 1 in. wide, pure tin, but the lode altogether is several feet wide, and contains good work throughout. All other points are the same as last reported on.

**GAWTON COPPER.**—G. Rowe, G. Rowe, jun., Feb. 25: We are very pleased to report the lode in the 117 east to be showing such cheering improvements during the past week, which is now 6 ft. wide, and worth 25l. per fathom. The lode in the stop in the back of the same level is worth 18l. per fathom. The lode in the 105 east is also improving, yielding 7 tons of ore and mundle per fathom. The lode in the stop in the 105, east of cross-cut, is worth 20l. per fathom. No. 2 stop in the bottom of the same level is worth 15l. per fathom. All other points are without change. Our new buildings in preparing the arsenic works are progressing very satisfactorily.

**GLASGOW CARADON.**—W. Taylor, W. J. Taylor, March 1: The sinking of the engine-shaft is progressing favourably; it is now down nearly 11 fms. below the 102 fm. level. We hope to complete the sinking, or nearly so, this month. We have just cut a branch containing some good ore in the shaft; this is one of the branches cut in the 102 cross-cut dipping towards the shaft. In the 102 west we are driving by the side of the lode; shall take it down shortly. We have resumed driving the 102 cross-cut, south of the south lode, to prove if there is any more lodes in this direction. This is a very important point, being all in new ground. We have just cut a branch here containing some good ore, but shall not stay to open it now. We have commenced a winze in the bottom of the 90, west of the shaft, to prove the lode here worth 8l. per fathom; the winze in the bottom of the 78, coming down on the 30, west of the north lode, worth 8l. per fathom. The stopes throughout the mine are not looking so well, varying in value from 6l. to 10l. per fathom.

**GLENDON.**—R. Rowe, March 1: Owing to a slight accident with the pump-roads, the water has been in the mine for some time, and not much has been done since last report in the very bottom. In the 103 north and the 60 north the same promising lode continues as reported last week—large and carrying a little blende in both ends.

**GORSEDD AND MERLYNN.**—W. Edwards, March 3: We continue urging on the driving of the 70 east level, and shall continue doing so until we strike the great east and west lode. The various branches still cross the end, and there is every indication of the richness and strength of the lode passing through our ground. In the 70 west level the men are driving south on the top of the rise in splendid ore, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and we have a further prospect of this portion of the mine. I am very glad to tell you the lode in the 90 west is improving, and contains good lead and blende. We shall urge on at great speed, so you may look for good results, as we shall not only intersect the north and south vein, and thereby be able to raise hundreds of tons of lead, but other runs of ore dipping from west to east, after we have driven a short distance. In the bottom of the 70 we have four men raising lead. The lode is worth 1 ton to the fathom. In the roof of the 70 east the lode is worth ½ ton of lead to the fathom. No. 2 stop in the back of this level is worth 1 ton of lead to the fathom. No. 3 stop in the back of this level is worth 1 ton of lead to the fathom. We have just cut a branch in the 70 east, which is a very good one, and







The Flagstaff District Silver Mining Company has been formed with a capital of 160,000£., in shares of 1£. each. A syndicate, represented by Professor M. C. Vincent, purchased for 27,500£. the property which some years since belonged to the Flagstaff Silver Mining Company of Utah (Limited) (now in liquidation), and some adjacent mines. With this last-named concern the new enterprise has no connection whatever, but in order to remove any adverse feeling that exist amongst capitalists who lost their money in the old concern the promoters of the Flagstaff District Company have made special arrangements for taking them in. To avoid all legal difficulty which might possibly have arisen from the fact that the company is not yet incorporated, the promoters have decided in the old concern the Flagstaff District Company has agreed to purchase from Professor Vincent (as representing a syndicate of 34 persons who have bought and paid for the property, and have an indisputable title) for 150,000£., all its fully-paid shares, leaving 10,000£. to be subsequently issued should additional working capital be required. But the manner in which the 150,000 fully-paid shares were disposed of is distinctly specified in the prospectus which will be found in another column. It is to be noted that the above is from the legal point of view this distribution of the fully-paid shares is a merely private arrangement between Professor Vincent and the several parties, and does not involve the risk of any subsequent dispute between the holders and the company. Professor Vincent is to receive 5000 (about 3 per cent. on the nominal capital) for his trouble and any expenses he may have incurred; the members of the syndicate are to receive 10,000£. to pay 2s. each for the shares, and the company 110,000£. cash. The share and debenture holders in the old Flagstaff Company are to be offered 134,000 shares, but are to pay 5s. per share for them, which



25 E. Devon, £3 15s.	20 No. Penstruthal, 40s.	20 West Phoenix, £2
10 East Caradon, 30s.	25 New Kitty, 35s.	5 W. Wh. Seton, £
1 East Pool, £34 10s.	20 Polrose, 17s. 6d.	10 Wh. Bassett, £4 1
5 Herodsfoot, 17s. 6d.	25 Prince of Wales, 14s.	10 Wheal Jewell, 12



# TIN HILL MINES, LIMITED.

## Our Latest Recommendation.

This, our latest recommendation, has achieved another success for us, and large profits for those of the public who are original shareholders.

## Rise in Price.

Since we first directed attention to them in December last the shares have risen 120 per cent., and the price at which they stand at the present time is no criterion whatever of the advance that will take place very shortly.

## Increasing Output of Tinstone.

The daily output of tinstone is steadily increasing, and will show large profits during the present year, while other proved lodes will be worked in a few weeks.

## Fine Quality and Purity.

The ore is of an exceptionally high average quality and of great purity, rivalling the best Cornish mines.

## No Speculation.

This is no speculation or risk, as there are extensive reserves of ore that have never been touched.

## Another Advance.

We are certain that another great rise of price is very near at hand.

## Recommendation to Buy.

Those who wish to secure the advantage of present quotation—£2 5s. per share—must purchase immediately, as the upward movement may be most unexpected.

**DALSTON AND CO.,**  
**29, THREADNEEDLE STREET.**  
**LONDON, E.C.**

### OFFICIAL REPORT.

Extract.—The great caunter lode, which is over 5 ft. wide, and, as far as we can see at present, must be worth nearly £100 per fathom.—Feb. 24th.

## THE RICO SILVER MINING COMPANY OF COLORADO

Has a Capital Stock of 25,000 Shares, of \$10 each, full paid, and non-assessable. It is a Limited Liability Corporation, organised under the Laws of the State of Illinois, for the purpose of purchasing, developing, and working Silver and Gold Mines situated at Rico, on the Rio Dolores, in that part of Colorado known as the "Silver San Juan" Mineral Country.

The Principal Office of the Company is at Chicago, Illinois.

The Georgie Mine, owned by the Rico Silver Mining Company, is situated in Horse Gulch, about one mile and a-half from the city of Rico.

The Georgie Lode appears to be a true fissure vein, which cannot be exhausted with depth; its width is now 3 feet 6 inches, and it is growing wider at the foot of the Incline Shaft. The country rock now is a calcareous pyritiferous quartzite, and the ore now consists of decomposed iron pyrites, white iron, black oxide of manganese, also galena carrying silver and gold; the quantity of galena increases as depth is attained. The gangue consists of quartz, calc spar, white spar, and felspar, partly decomposed.

From these, and from other indications, it is considered by competent mining experts that the Georgie Lode Claim is a very valuable property, and that it will produce good smelting ore, rich in silver, and probably carrying gold also.

The Company owns a mill site of five acres, situate at the junction of Horse Creek and the Dolores River.

The Grand View Smelting Works, distant about one mile from the Georgie Claim, are now in operation, and buying ores.

The Directors of the Rico Silver Mining Company offer for Sale a limited number of Working Capital Shares on very favourable terms to investors.

The policy of the Rico Silver Mining Company may be briefly outlined as follows:—To buy Mineral Claims from prospectors and locators now while Claims are cheap; to do sufficient work on each Claim to entitle the Company to a United States Patent; to take out the United States Patent for the property, and thus make the title secure; in other words, to do precisely what the Locator himself would gladly do had he the necessary capital: finally, to do the deep working when it can be done cheaply and profitably, which time will not be long coming after the Denver and Rio Grande Railroad reaches Derango this Spring.

The plan of operation pursued by the Rico Silver Mining Company has this result:—According as Working Capital Shares are sold, both fresh property and enhanced value are added to the Estate of the Company, which thereby steadily increases in volume as well as in worth. The Company's Estate not only gains in individual value, but also shares in the great general advance in value of Mining property which has now commenced in the San Juan Region, consequent upon the extension of the Denver and Rio Grande Railroad into that District.

The Rico Silver Mining Company is carefully managed at a small expense, and purchasers of its Working Capital Shares may reasonably look for large returns from the Investment. Profits of from 50 to 100 per cent. per annum are anticipated.

Prospectuses, and other information, will be sent, post free, on application.

January 10th, 1881.

245, WABASH AVENUE, CHICAGO, U.S.

J. J. WEST, President.

## MINING AS A BUSINESS.

### Points to be Considered by English Capitalists, as Regards American and other Mining Investments.

Anyone who thinks of putting money into Mining can, by writing to me, have sent, post free to his address, a CIRCULAR, which will give him Valuable Points of Financial Utility, and Practical Views regarding Mining Investments generally, considered from a business standpoint.

J. J. WEST, 245, WABASH AVENUE, CHICAGO, U.S.

## Notices to Correspondents.

TANNING.—"H. and W." (Bristol).—Other letters addressed as stated have duly reached their destination and been attended to. Your letter to us was forwarded unpaid (perhaps you will send us 2d. in stamps); a similar omission may account for your disappointment in the other case.

GOLD COMPANY OF SOUTHERN INDIA.—I would esteem it a great favour if any correspondent could give some information regarding the Gold Company of Southern India (not the South Indian Gold Mining Company, which has no connection with it). I have written to the secretary twice within the last fortnight, and have never received any answer to my letters. The last notice I received from them was the circular of Dec. 8, stating that the company was to be wound-up, and that the shareholders who had paid up their calls would receive share per share in another company which had taken over the estates they should have done.—B. D. C.

Received.—"D. A. L." (Dublin): We will endeavour to ascertain the particulars.—"J. H. P."—"J. D.": The letter from Mr. A. A. de Metz on the Flagstaff Company shall be inserted next week.—"L. A. S." (West Lisburne): It appears that it is necessary to pay up in full before any transfer can be made.—"J. T." (East Long Rake): Next week.

## THE MINING JOURNAL, Railway and Commercial Gazette.

LONDON, MARCH 5, 1881.

### ATMOSPHERIC INFLUENCES ON MINING OPERATIONS.

Meteorologists have been warning our mining managers that the atmospheric disturbances are likely to be such as to necessitate the greatest caution as well as the most active exertions in procuring as much ventilation as possible, and maintaining it to the fullest extent. These warnings should not be passed unheeded, for although they are not followed at all times by anything of a serious nature, yet it does not follow that they may not be so. The barometer is the instrument upon which our meteorologists depend for their deductions as to atmospheric changes, yet many mining engineers consider that it is not reliable, and that no inconvenience would be occasioned were it dispensed with altogether, yet it must be admitted that the barometer has done good service, and until we get a more sensitive instrument it would not be advisable to do away with it. Changes are frequently very sudden, and can only be indicated by the barometer. It is stated that when the atmosphere is at a low temperature the aqueous vapour occupies a smaller space, and the atoms of oxygen and nitrogen get closer together, but when the heat of the sun, or the heat from some other source, comes in contact with the atmosphere at a low temperature the watery vapour seizes the heat with great avidity, and thrusts the atoms of nitrogen and oxygen further apart.

Then the vapour seizes the gas in the coal and goaves until in a short time the mixture may be at an explosive point. In winter, too, the gas is keener, and there is generally a top on the flame that will fire before it is half the length it will show in warmer seasons. Under such circumstances it is that our mining engineers, or some of them at least, hold that the explosions in winter, taking space for space, are far more severe than they are in summer. On the other hand, the barometer is considered by many practical men to be a good guide, and should be continued at all our mines that are in the habit of giving off gases, and we have it on good authority that the gas existing in a mine and the atmosphere are so closely connected together that the slightest movement in the one is indicated in the other. This is shown by the steam-boiler, for if you lift up the weight the steam escapes, and the pressure of the atmosphere on coal may be regarded as something like a delicate spring or valve preventing the gas from escaping from the coal, and the slightest variation in the pressure will immediately tell upon the escape of gas from the coal, the quantity of gas escaping in them being in proportion to the variation in the pressure. Under constant pressure gases dilate uniformly with the temperature, and the increase of the volume, according to GAY LUSSAC, is for every degree of the centigrade thermometer equal to 0.0037 of the volume at zero. The figure expressing the density of the gas usually agrees with that of atmospheric at zero, and at the pressure of 0.76 of mercury taken as a unit. The laws of MARIOTTE and GAY LUSSAC suffice to determine the weight of a gas under a given pressure and temperature, when the specific weight of the same gas under a certain pressure and at the temperature of zero is known. Gases, like all other bodies, have the property of dilating when their temperature increases, and of contracting on becoming colder, so that the volume of gas augmenting with their temperature their gravity diminishes in the same degree—the contrary, of course, takes place when it is colder.

In connection with the barometer, it is found that when there is a movement in it either higher or lower, the pressure on the space through which the gas escapes is either less or greater, so that consequently the quantity of gas will be determined by the amount of variation. In referring to atmospheric influences in connection with mining the condition in which the gas is given off should be taken into consideration. If it is assumed that gas is given off at a temperature of 70°—which is pretty nearly correct—and passing into a colder one it is of course more likely to expand and become di-

luted than otherwise. As to the best condition in which air can be sent down a mine so as to carry away the largest quantity of gas the opinion appears to be that the lower the temperature there is more diluting power, but some hold that a high temperature of air prevents an explosion of gas, but it certainly appears to be more reasonable that the colder the air the more able it is to carry off a larger proportion of gas and render it harmless, for the hotter the air the less power it has to dilute the gas. One eminent mining engineer has laid down a theory that many of the severe explosions in coal mines in the winter have been owing to the low temperature of the atmosphere and the aqueous vapour it contained during that portion of the year, and to which we have alluded. To some extent it is admitted that atmospheric influences affect the ventilation of mines, for the changes in the pressure and temperature of the atmosphere may reduce the ventilating pressure of the mine. But at the same time the change of pressure might not only slightly reduce the ventilating pressure but might allow the gas to expand. The wind in a certain direction has been held by some persons to be unfavourable to ventilation.

In a paper prepared some time since by Messrs. DOVE and KAR-METZ it was shown that during all seasons of the year there was with a sound wind the lowest barometer, the highest thermometer, with the vapour tension in the air at the highest, and this to a considerable extent proves that the observations of practical men agree with the most carefully recorded meteorological observations. Messrs. SCOTT and GALLOWAY, in their interesting paper read before the Meteorological Society, said that if a number of mining report books were taken together they would show in a remarkable manner the correspondence between appearance and disappearance of fire-damp in colliery workings with the fall and rise of the barometer. They found that the sudden oscillations that accompanied change of weather affected the condition of mines, and that in some cases gas might not be appreciable with a falling barometer, but that it must exude in a greater quantity than usual, and might be so diffused and carried away before a sufficient quantity had accumulated to be appreciable, but it might possibly accumulate in places that could not be thoroughly ventilated.

After four years of observation Messrs. SCOTT and GALLOWAY found that the explosions in coal mines occurred as follows:—54 per cent. from a fall of barometer, 19 per cent. from a rise of thermometer, and 27 per cent. from causes not connected with atmospheric influences. These returns, we consider, show the value of the barometer as an indicator of atmospheric changes. It must, however, be said that a considerable number of our barometers are so badly constructed that marked variations take place in the atmosphere before they are indicated by the instruments. But there are instruments now constructed that show the slightest variation, therefore the barometer should be looked upon as reliable, and a good one should be obtained. We hope, therefore, that the barometer at the present time will be carefully watched, and that our mine managers will pay attention to the warnings that are being given by our meteorologists as to the atmospheric changes that may be expected, as well as the dangers that it is possible to arise from them if care be not taken in time.

### THE RATE OF INTEREST ON MONEY.

An economic revolution has been in course of silent accomplishment for some time past. We refer to the great and general decline in the value of money, or rather to the great and general decline in the rate of interest on capital. With Consols nearly at par, with railway preference and debenture stocks, as well as municipal bonds yielding him a poor 3½ per cent. per annum, and with land entirely closed against him for the time being, the British capitalist may well ask himself whether it is not time that he should bestir himself in order to find new fields for the employment of his resources. The British colonies offer him at present the most tempting outlets. In the most prominent of our colonial dependencies the English capitalist enjoys the protection of a well ordered system of law and of free and impartial Parliamentary government just as much as he does at home; and this being the case, a security is given to his investments, such as he can never quite attain in foreign countries. It is accordingly not at all surprising to find the 4 per cent. bonds of such colonies as Canada, New South Wales, Victoria, South Australia, &c., almost, if not quite, at par, while the securities of the Anglo-Indian Government enjoy again an almost equal amount of public favour. The debentures of companies carrying on mortgage and agency business in Canada and the Australasian colonies are also so eagerly sought after that money can now be raised by this means by the oldest of these undertakings at 4½ per cent. per annum, and in some cases at even a slightly lower rate. All this is immensely calculated to accelerate the important work of colonial development. Then, again, another great influence is tending to bring about a similar result. We refer to the stimulus which the depression now prevailing among the British agricultural interests has undoubtedly given to emigration. We believe the extent of the present depression in English agriculture is scarcely realised by the denizens of our great towns. Unless the agricultural counties of Great Britain are blessed in 1881 with a bountiful and well secured harvest the consequences which must ensue are really fearful to contemplate. Five unfruitful seasons and increasing foreign competition in every department of their operations have brought three-fourths of the farmers of this country to the verge of ruin, and with another bad harvest this ruin would be complete. An abundant yield of wheat and barley in 1881 may possibly have the effect of deferring the evil day, but so long as foreign and colonial competition prevails in its present intensity we greatly fear that the ruin of the British agricultural interest will in any case unfortunately become more wide-spread than it is at present. As the shoe pinches the poor farmer more and more, he must have recourse to emigration to a far greater extent, so that both the capital and the agricultural experience of England appear likely to find their way into our vast colonies to a far greater extent during the next eight or ten years.

The iron trade of this country cannot regard all these circumstances with indifference. The opening out of the British Colonial Empire with greater vigour must have the effect of increasing the demand for rails and railway matériel of all kinds. This must be a great advantage to the metallurgical and mechanical interests of this



country. But apart from this, our colonies seem more or less with coal and minerals, to say nothing of the precious metals, and the working of these must be stimulated by an influx of British capital and population into districts which are now almost in a state of nature. Certainly we are living in many respects in very remarkable times.

#### THE DYNAMITE MONOPOLY.

The hearing of the application for the prolongation of the patent for dynamite granted, through his agent, to Mr. Alfred Nobel, of Paris, was commenced before the Judicial Committee of Privy Council on Wednesday, when it was urged for the petitioners—Nobel's Explosives Company—that prior to and until the granting of the patent in question nitroglycerine, which is a composition formed by adding glycerine to a mixture of strong nitric and sulphuric acid, was largely and necessarily used in Great Britain for the purpose of mining operations. When existing in an uncombined state it was an explosive of a highly dangerous character both in transport and in storage, and many fatal accidents had occurred through its use—notably one at Newcastle-upon-Tyne. The loss of life arising from its use became so serious that a statute was passed prohibiting its manufacture, sale, or storage, except under a licence from a Secretary of State, and these licences were only very sparingly granted. In these circumstances Mr. Nobel discovered and endeavoured to introduce into this country a process, which consisted in dissolving the nitroglycerine in wood spirit, as in this condition it was substantially safe to carry until that spirit evaporated; but to render it fit for use the nitroglycerine had to be separated by adding water to the mixture. This process was found to be inconvenient, and Mr. Nobel then produced an invention which enabled a competent workman to manufacture the nitroglycerine into a substance which might be transported, stored, and used without any separation, and with perfect safety. This invention, shortly described, was for a process of absorbing nitroglycerine in porous incombustible substances, such as charcoal, silica, or paper. When so absorbed it was converted into what is known as dynamite, and acquired the property of being in a high degree insensible to shocks, and capable of being burnt over a fire without explosion.

It was further contended that the invention was, when the patent was granted, quite novel and of great public value, and it involved dangerous experiments and considerable expense. From the date of the patent the sole importers of nitroglycerine and dynamite in this country were Messrs. Webb and Co., of Llanberis, and they expended large sums in developing and working the patents. In 1869 the Nitro-Glycerine Act was passed, and at that time Messrs. Webb and Co. had in their possession several tons of dynamite, which they had imported from Hamburg. It was not until over two years that they were allowed to deal with that particular dynamite or to import more. In 1871 the British Dynamite Company was formed to work the patent, and receive licences from the Home Office for the manufacture and sale of dynamite, but it did not commence that sale until 1873. The patentees had up to and since then been much impeded by adverse litigation from obtaining the benefits of the patent, which had been extensively infringed on the Continent and elsewhere. In 1877 the British Dynamite Company was dissolved, and Nobel's Explosives Company (Limited) was formed, and they now carried on an extensive business in connection with the patent and in manufacturing the explosives. Owing to the difficulty in obtaining the Government licences, the litigation consequent upon infringements, and the time thus lost, the petitioners alleged that they had not received adequate remuneration for the labour, time, thought, and capital expended. They had been always ready to grant licences for the use of the invention and to supply purchasers with their patented dynamite. For these reasons they applied for a prolongation of the patent for a further term of 14 years, or such shorter term as their lordships might think fit.

The grounds upon which the prolongation of the patent is considered unjustifiable have already been fully detailed in the *Mining Journal*, which, in addition to the fact that the matter is now before the Court, renders further argument at this moment out of place. It may, however, be mentioned that it is considered the case will last some time, as those opposed to the prolongation are prepared with what they consider ample evidence to prove that at the date of the patent there was less novelty than was claimed for the invention, that the holders of the patent have been bounteously remunerated by the exorbitant profits they have received, and that the conflicting decisions given by the judges in the litigation between Nobel and Krebs in the English Courts afford conclusive proof that the litigation was justified, and that consequently any expenses incurred in connection with it cannot reasonably be urged as a ground for prolongation nor as a set-off against the profit realised. There can be no doubt that on the present occasion the several points will be thoroughly argued, as Mr. T. Aston, Q.C., and Mr. Macarty are counsel for the petitioners; Mr. Webster, C.E., Mr. Lawson, and Mr. Chadwick Healey for the opposing parties; and the Attorney-General, Mr. A. L. Smith, and Mr. Danckwerts for the Crown. Mr. Webster stated, in reply to Sir Barnes Peacock, who, with Sir James Montague Smith, Sir Robert Collier, and Sir Richard Couch, is hearing the case, that he represented over 30 of the opponents, who were divided into three groups, representing several mining companies, and a large number of gentlemen. Practically their objections were the same, except that they made some reference to foreign patents.

On behalf of the Crown Sir Henry James raised an objection which he thought would invalidate the petition. The petition was not filed till Dec. 17, and the patent would expire on May 7. The Act of the 2nd and 3rd Vic. required that the plaintiffs should be presented at least six months before the expiry of the patent. The 6th and 7th Vic. modified the law in the case of an application for an extended patent, on the ground that the inventor had not received compensation for his labour and expenditure, but that was not the case here. Therefore he contended that the petition for a prolongation of the patent must fall to the ground. After considerable argument their lordships held that the objection could not be sustained. On behalf of the petitioners, Mr. Aston observed that by the opponents of the patent it was said that the petitioners were merely assignees, who had paid the first inventor, and if the petitioners were not remunerated, then it had been caused by their negligence in carrying on the business. He submitted that that was not so. Then the Nobel Explosives Company was charged under their privilege of making exorbitant charges. That was entirely unfounded. Their opponents would have to prove that. But the evidence of his clients was that the charges were very light as compared with some continental makers.

The first witness examined was Lieut.-Col. Majendie, Her Majesty's Inspector of Explosives, who stated that he examined all applications for the manufacture of explosive substances that were addressed to the Home Office. It was essential that dynamite should be carried on under Government supervision. Nitroglycerine was of such a dangerous character that it could not be stored or transported with safety. Dynamite as compared with nitroglycerine was very much safer; but dynamite had its own risks, and it was necessary to guard against those risks by the observance of certain precautions which were found partly in the Explosives Act and partly under the licence granted under that Act. If those precautions were observed there was no reason why there should be any undue proportion of accidents.

As a witness on behalf of the petitioners Professor Abel stated that he now considers dynamite to be certainly one of the most easily controllable agents with which we are acquainted. Its plasticity gives it advantages over similar explosives of a violent character. It is less subject to explosion by friction than other rigid explosive solids. The comparative safety of dynamite must be considered to rank highest among the explosive agents of a violent class. It is very extensively used in mining operations. He adhered to what he had written, that dynamite was one of the safest, most powerful, and most convenient of explosive agents now used for certain purposes; and that the preparation, as made by Nobel, appeared to set aside completely all the objections to nitro-glycerine in its liquid form. When dynamite was first introduced to his notice he did not consider that its use could be attended with safety; but his first impression had been altered by practical experience. Prof. Odling and

Dr. Dupuy gave similar evidence. Mr. Aston, in calling Mr. Kemp, accountant, and Mr. Orlando Webb, the representative of Mr. Nobel in this country, contended that there were two things to be considered in the application for the prolongation of a patent—whether the inventor and the persons who had introduced the patent had been sufficiently rewarded for their skill and industry. The circumstances in this case were also exceptional, the patentee having only received 4500*l.*, and the company a small remuneration, quite inadequate to compensate them.

Upon resumption of the hearing to-day (Friday) the council, the company's case having been concluded, deemed it unnecessary to call upon the objectors. Their lordships adjourned for consideration, seeing the large profits made by the company. Upon reopening, Sir Barnes Peacock gave it as the unanimous opinion of the council, that they could in no case recommend Her Majesty to prolong the patent, seeing the large profits made upon a capital of 15,000*l.* He further expressed the great disgust of the council at the attempted blinding of the council by the false statements of accounts submitted. Prolongation refused with costs.

In connection with this matter an interesting abstract of the accounts submitted to the Privy Council of profits made by Nobel's Explosive Company from 1873 to 1879 inclusive has been forwarded for publication:—

#### ABSTRACT OF NOBEL'S DYNAMITE COMPANY'S ACCOUNTS.

Nitroglycerine from 1873 to 1879, 5,381,714 lbs., at 1*s.* 9*d.* per lb. „ estimated to April 30, 1881, 1,388,553 lbs., at 1*s.* 9*d.* „

Total nitroglycerine	6,770,267	£592,345	17	3
Kieselguhr (cost up to the end of 1879)	...	7,558	0	0
Packing-boxes, lining, and labels, ditto	...	24,874	7	2
Parchment (cartridge) paper, ditto	...	6,772	16	3
Workers' wages, ditto	...	10,092	2	11
Freight and insurance, ditto	...	31,852	13	4
Agents' commissions, ditto	...	51,839	7	1
Instructors' wages, travelling expenses, &c., ditto	...	22,415	1	11
Sundry costs, plant, vessels, bank charges, &c.,	...	670,973	2	3
bringing up the total cost to	...	2,414	8	6
Showing a profit on sales for seven years of only	...	...	...	...

It is a principle of logic that he who proves too much proves nothing, and Mr. H. Waddington's remarks on these accounts certainly seem to show that in this case the extremely low estimate of profit goes far to prove the inaccuracy, or at least the unfair manipulation, of the accounts. He points out that "it will be observed that the large profits made have been cloaked under the charge of nitroglycerine, and although made by themselves, it is set forth as costing 1*s.* 9*d.* per lb. It will be shown before the Privy Council that it is made at 10*d.* per lb., and that this excessive price hides a net profit, as shown by their own books, of nearly 300,000*l.*, realised and estimated up to the end of April, 1881: 6,770,267 lbs. of nitroglycerine will have been made which, at cost price, or (say) 10*d.* per lb., one-half the company's debit, amounts to 296,174*l.* The cost of nitroglycerine can be made up thus:—

46 lbs. of sulphuric acid	3 <i>s.</i> 10 <i>d.</i>
26 lbs. of nitric acid	6 <i>s.</i> 6 <i>d.</i>
10 lbs. of glycerine	4 <i>s.</i> 2 <i>d.</i> = 14 <i>s.</i> 6 <i>d.</i>
Result, 20 lbs. of nitroglycerine or...	83 <i>d.</i> per lb.
Workman's wages, &c., say	13 <i>d.</i> per lb. = 10 <i>d.</i>

Total cost. The residue, or by-products, are sold as agricultural manure, and may pay the labour costs, as far as I know. We may pick out items amounting to 140,000*l.*, or 20 per cent. on total sales, which are totally unnecessary, as would be found by any local manufactory. The 6,770,267 lbs. of nitro-glycerine at 75 per cent. would make 9,027,022 lbs. of dynamite. The actual cost of converting the nitroglycerine into dynamite does not cost in Kieselguhr, workers' wages, shop charges, and ammonia more than 5 per cent. If, then, 1 lb. of glycerine cost 10*d.* this will make 1½ lb. of dynamite at a cost of 1*s.* or 9*d.* per lb."

#### GOLD MINING—ELEPHANT STAMPS.

It is satisfactory to find that amongst practical miners more disposition is shown to avail themselves of the vast strides that have during the present generation been made in the mechanical arts; and, instead of adhering to old types of tools and implements, they show an inclination to adopt the most improved and powerful appliances placed before them by the steady march of mechanical science. These remarks apply especially to rock-boring and hauling, but are equally applicable to stamping machinery; the disintegration of mineral to the degree of fineness necessary to liberate the precious metals from their natural matrix has always been, and must always be, a matter of vital importance, and is one of the most costly and laborious of mining processes. It has, therefore, at all times been sought to impress upon the readers of the *Mining Journal* the necessity of keeping steadily in their view the reduction to the utmost of that indispensable expense; for in the case that often happens with poor ores which would otherwise pay, the cost of stamping has been so serious as to lead to the abandonment of the mine solely from the fact that the ore was too poor to pay the great cost of stamping it.

Much gratification has been afforded to practical men by having had the opportunity during the past fortnight of observing a new kind of stamping-mill working at the Millwall Docks, made by the eminent mining machinery engineers, the Sandycroft Foundry Company, near Chester, and no idea could be formed without a personal observation of the extraordinary quantity of mineral it stamps with so small an expenditure of power. The machine, from its compactness, is in marked contrast to the ponderous ordinary stamps, and the astonishing feature about it is the smoothness with which it works while delivering such quick, powerful blows. It is really marvellous to watch the quantity of fine pulp that keeps flowing from the coffer. It appears that there is much less wear and tear on the working parts than on the lifter stamps, and very much less power required.

The Sandycroft Foundry Company merit much commendation apart from any profit that may accrue to themselves for the spirited way in which they have brought this powerful mechanical appliance in such a convenient manner under the immediate observation of practical miners and their friends, by erecting and working the machines at Millwall Docks, so as to enable those interested in the subject of stamping to see with their own eyes the work in operation. The number of people who have already availed themselves of the opportunity is the best evidence of the importance they attach to the subject. The machines, it is understood, will be kept at work for about another week, and Messrs. Bicknell and Taylor, of 6, Queen-street-place, will give orders for enabling those interested in the subject to see the Elephant Stamps crushing gold quartz.

**ECONOMIC TREATMENT OF PYRITES.**—A discovery, which if successfully developed is likely to effect nothing short of a revolution in the pyrites trade of this country, has recently been made, and is presently seriously engaging the attention of chemists both here and on the Continent. It has long been acknowledged by competent authorities that the method now followed for the assaying of pyrites was not the most satisfactory that could be wished; but the difficulty hitherto experienced in dealing with that ore was to extract the various metals (gold, silver, and copper) in a manner that would yield a profit on the operation. This is the difficulty now said to have been overcome, and the discoverer of the process is a French scientist of standing. Of course, the practical results in dealing with large quantities of ore are yet to be ascertained, but the experiments up to this time made show a return of between ½ to ¾ of an ounce of gold from each ton of pyrites treated. The right to the patent has been secured by the Tharsis Sulphur and Copper Company (Limited), and the apparatus necessary for the proper working of it out is being erected at the works of the company. The experiments hitherto made have been conducted in Paris, and there the results are regarded as of so satisfactory a character that large orders to buy the shares of the Tharsis Company have lately been placed here and in London, the consequence being, as might have been expected, that the price has gone up from 34*l.*, at which it stood in the closing week of last year, to 38*l.* 7*s.* 6*d.*, the figure noted to-day.

#### BRITISH CAPITAL AND UTAH MINES.

##### THE FLAGSTAFF DISTRICT SILVER MINING COMPANY.

The almost unbounded mineral wealth of Utah is admitted to be beyond question, and although hitherto British capitalists interested in its development have heard more of litigation than of mining, it is now felt that the period of obstruction and disappointment is passed, and that the mines of Utah are destined to enjoy a long period of prosperity, which will amply repay those connected with them for the vexatious delay they had to submit to. It is but quite recently that the announcement was made in the *Mining Journal* that all the litigation with regard to the celebrated Emma had been amicably settled, and arrangements concluded which would permit of the mine being regularly and energetically worked for the benefit of those British shareholders who had long ceased to have any legal claim to the property. An equally gratifying and satisfactory arrangement appears to have now been made with regard to the Flagstaff property, the important feature of which is that whilst the new company, which has just been formed, is entirely disconnected from the old concern the interest of the share and debenture holders in the latter is not ignored. The value of the mine itself may be regarded in some sense as proved by the enormous efforts which have been made by the contending parties to possess it, and now that those who hold shares or debentures in the old concern have an opportunity of dealing directly with a vendor who, according to American law, has an indisputable title they will have only themselves to blame if they do not embrace an offer holding out such an inducement by securing an interest in the company now just made public.

Whatever advantages may have been possessed by the old company, and it is admitted that they were numerous, they will be vastly increased under the new organisation, since the profits will be distributable upon a capital of only half the amount, and the new company will have a sound instead of a defective title. Judge Gilchrist, of Salt Lake City, an American lawyer of acknowledged reputation, has thoroughly investigated the title under which the vendor company—the American Mining Company and Mr. McCormick—hold, and he declares it to be perfect, so that the surrender of it, (which would be necessary in order to obtain a United States patent, as some have suggested) would be a mere waste of time and money, and possibly in the end an entire loss again of the property. The distribution of the Flagstaff District Silver Mining Company's capital appears somewhat complicated upon the face of the prospectus, yet it is, in fact, not only simple, but gives the old shareholders and debenture-holders, neither of whom have for years past had any more real claim to the property than the Makido of Japan, some very substantial advantage. The syndicate formed to aid in the purchase have already paid 27,500*l.* in hard cash for the property, and are to receive in consideration of having done so 11,000 shares, upon contributing another 1100*l.* towards working capital. The old share and debenture holders are offered in the same way 134,000 fully-paid shares of 1*l.* each upon their contributing 33,500*l.*—being 5*s.* per share—of which 27,500*l.* is applied to the purchase of the quit claim title from the American Mining Company, and of that from Mr. McCormick as to the South Star and Titus, leaving over 6000*l.* towards working capital account, which will thus stand at 7100*l.* cash in hand, with 10,000*l.* of unissued capital to fall back upon if necessary to meet contingencies, which would seem to indicate a very sound basis for the new company. The sole outside charge on this working capital account (of 7100*l.*) is the 1250*l.* which, according to the prospectus, the company undertake to provide for law costs and expenses connected with the acquisition and transfer of the property to them, so that operations will be commenced with a net unencumbered working capital of between 15,000*l.* and 16,000*l.*, estimating the 1000 unissued shares at par only, an amount which probably from the nature of the mine will never be required.

The figures above given account for 155,000*l.* out of the 160,000*l.* of which the company's capital consists; the remainder applied to cover the allotment to Professor Vincent of 5000 fully-paid shares, which is scarcely more than 3 per cent. upon the nominal capital, and cannot but be regarded as an extremely reasonable amount of remuneration when it is considered the years of trouble and responsibility he has had in connection with the old Flagstaff Company, and how much financial sacrifice he must have endured in the matter. It may, perhaps, be worth while to mention that this allowance of shares is considerably less than half the amount which it cost the shareholders for the re-transfer of the Emma property, and that as the payment is made in a straightforward and business-like manner, and prominently declared in the prospectus, there cannot be any subsequent question with regard to it. With regard to the mine itself, it has already been stated that its value is indisputable—the Flagstaff having produced in round figures 1,000,000*l.* sterling—but if any further evidence were required to satisfy the shareholders it would suffice to notice the fact that the Vallejo Mine, immediately adjoining the Flagstaff, is, by recent advices, taking out very rich ore, and at points much lower than the deepest level in the Flagstaff, which, it is truly said, may be accepted as proof positive of the continued richness of the Flagstaff at greater depths than any yet reached. The new company will commence operations with all the necessary elements of success, and with such judgment and energy as the names on the board of direction—including Professor Vincent himself—would lead one to expect. Shareholders need not doubt that that success will be speedily attained.

#### THE MEKARSKI COMPRESSED AIR-ENGINE.

For some time past—nearly two years—a very efficient and economic system of compressed air traction, now on view at the Victoria Station of the London, Clatham, and Dover Railway, has been in operation in France on the Nantes Tramways, and recently the Wantage Tramway in this country has been worked on the same principle. Their power and reliability may be judged of from the fact that at Nantes they constantly draw two trams capable of carrying 50 passengers each, and it can scarcely be doubted that as soon as they become better known in this country they will be generally adopted. The arrangement is sometimes made to combine the locomotive with the car itself, but even taking the less favourable case of a separate locomotive—when the locomotive and the car together would weigh 13½ tons—the consumption of compressed air is but 2½ lbs. per ton per mile, or 34 lbs. per mile in all. As each locomotive is supplied before starting with 200 cubic feet of compressed air, at a pressure of 450 lbs. to the square inch, of which 396 lbs. can be expended, it can be run about 10½ miles with one charge. These results are thus brought out. The 200 cubic feet of air is stored at starting, at a pressure of 450 lbs. to the square inch, in reservoirs on the engine, the capacity of which is 1210 gallons. Before passing into the cylinders the air passes through a reservoir of hot water, charged also before starting, at a pressure of 72 lbs. per square inch, and consequently at a temperature of 320° Fahr. The air becomes heated in passing through the water and mixed with steam in the proportion of 1-6th of steam to 5-6ths of air. Before passing into the piston it passes first through an expansive regulator, which emits the mixture at a constant pressure of 90 lbs. to the square inch. The temperature of this mixture being about 212° Fahr., it can thus be employed in expansion in the cylinders without any fear of that cooling down which is produced during the expansion of dry air. This mixture of air and steam allows double the work being obtained from a given quantity of compressed air than can be obtained from dry air or compressed air obtained by any other mode, and the interposition of the expansive regulator gives a most remarkable suppleness of movement to the engine, whatever may be the pressure in the reservoirs.

The regulator, upon which, in fact, the success of the system is in a great measure dependent, is at once simple, and not likely to get out of order. It consists essentially of two brass chambers, superposed and separated by a diaphragm in rubber. The first forms a sort of hydraulic press, the piston of which is moved by a screw



put in motion by means of a small wheel. In descending the piston presses back water in an annular chamber, where a small quantity of air is confined. It acts as a kind of spring, on which the necessary degree of tension is easily given. The lower chamber is, during the journey, in communication with the slide valves of the engine. The compressed air passes through an opening on the opposite side of the rubber diaphragm, and helps to close a conical valve pressed by a spring. This valve is governed by a rigid stem, on which a plate is fixed which is acted on by the air-spring, with the assistance of the diaphragm, so that by pressure on the spring, which reacts on the plate, the opening of the orifice is regulated; but, as the pressure at which the escape is produced acts in a contrary sense on the diaphragm, and thereby tends to close the valve, it acts in such a manner as to maintain the two actions in equilibrium. The pressure of the escape consequently remains regular so long as the state of the spring is not modified, and varies with it. A very slight displacement of the piston suffices to augment or diminish the pressure of the spring, and the power of the machine can be instantly changed. From this point of view the use of the regulator presents another advantage—that of running continually with a slight introduction of air, while with the ordinary locomotive it is necessary to restrain the expansion so as to increase the effort of traction. It has been fully ascertained by the Société Générale des Moteurs à Air Comprimé that with their specially designed stationary pumps they obtain 1 lb. of compressed air at 450 lbs. pressure per square inch, with the consumption of  $\frac{1}{4}$  lb. of coal, so that the charge for each journey would require  $8\frac{1}{2}$  lbs. of coal, being considerably less than 1 lb. of coal per mile run. The working of the system on the Nantes Tramways has been carefully investigated and fully reported upon by Mr. F. J. Bramwell, C.E., and a more favourable opinion than that which he has expressed could not be wished for.

## SOUND INVESTMENTS.

**NEW YORK, PENNSYLVANIA AND OHIO (LATE ATLANTIC AND GREAT WESTERN) RAILROAD.**—In recent circulars I drew attention to the advantageous position held by this line as forming an important link in a great combination of railways leading from the Western States to the sea-board. The map which I issued clearly indicated the new and direct route thus to be established, and subsequent events have fully justified the forecast I then made. Information just to hand leads me to believe that the consummation of the plans I then briefly outlined is rapidly approaching, in which case the rise in all New York, Pennsylvania, and Ohio securities will be considerable. The want of success which attended this line in the past has been entirely due to its dependence on one outlet for its traffic, and full advantage has been taken of this helpless position, to the detriment of the property. When, however, this railway forms part of a system carrying the vast traffic of Western roads aggregating 9000 miles, the development, hitherto checked, must make rapid progress without regarding the extraordinary speculative activity infused into all enterprises connected with the "Wabash" interests now predominant on the American Continent.

All the securities of this line are well worth buying, regardless of the special arrangements now pending, but the Seven per Cent. Perpetual First Mortgage Bonds are, perhaps, the most attractive at the present time. They are accumulative, and if in any half-year part of the interest only be paid, warrants will be issued for the part remaining unpaid, which warrants can be at once converted into the same class of bonds. The latter can be sold for cash through the medium of the new "Coupon Agency."

The position of a buyer of \$1000 (2000) bond at the present price of 70, costing 140%, and presuming there should be no improvement in the earnings, would be as follows:—

Interest on the same basis as paid on Jan. 1,  
1881,  $2\frac{1}{2}$  per cent. in cash \$25  
In 1st Mortgage Bonds  $4\frac{1}{2}$  per cent., or \$45 Stock  
at present value of 70, \$312  $\frac{1}{2}$  = \$56  $\frac{1}{2}$  or 117. 6s.  
Equal to 87. 1s. 6d. per cent. on present cost.

If the recent rate of improvement in traffic should continue during the remainder of this year, and the expected saving in working expenses be realised as a result of the narrow gauging of the road, the laying of steel rails, and the economy effected by the acquisition of rolling stock, instead of hiring as formerly, there is a reasonable probability of the cash distribution being at the rate of 4 per cent., when the bonds would no doubt be worth 90.

The interest on the investment would then be represented thus, in cash, 4 per cent. = \$40  
In 1st Mortgage Bonds 3 per cent., or \$30 Stock,  
at 90 = \$27  
Equal to 97. 11s. 5d. per cent. on present cost.

Upon this estimate (in the event of 4 per cent. being paid in cash this year) the income would be 97. 11s. 5d. per cent., and the capital value would increase at the same time no less than 20 per cent.

**GRAND TRUNK RAILWAY OF CANADA.**—Full dividends on the First and Second Preference, and a distribution at the rate of 1 per cent. per annum on the Third Preference have just been paid. All doubts as to the result of the past half-year's working are thus set at rest, and those who are interested in this railway must be well satisfied with the position now attained.

It is evident from the success which has attended the recent issue of 225,000 of 5 per cent. debentures by the Chicago and Grand Trunk Railway (when no less than 1,500,000 was applied for), that the securities of the Grand Trunk Railway Company are steadily increasing in popular favour. Hitherto from the want of terminal facilities in Chicago, which this new capital will provide, the Grand Trunk extension to that city has not derived that benefit which must now accrue to it. The following extract from the prospectus is interesting to every shareholder in the Grand Trunk Railway:—

"The works and property to be constructed and acquired will provide suitable passenger and freight accommodation in Chicago, not merely for the Chicago and Grand Trunk Railway, but also for the entire system of the Grand Trunk Railway of Canada and its connections, extending from Chicago to various American and Canadian centres of commerce, including the ports of Montreal, Portland, Boston, and New York, on the Atlantic Ocean, and comprising upwards of 2000 miles of railway under control of the board of the Grand Trunk Company."

It will no doubt be remembered that when the first issue of Chicago and Grand Trunk Bonds was made, the amount offered was 500,000 of 6 per cent. Stock, at the price of 94, and applications were received for about twice that amount, now a 5 per cent. stock at par is applied for nearly seven times over.

The best authorities agree in stating that there is every prospect of the receipts of the Chicago line doubling within the ensuing year. It is also a very important feature that the marine connections of the Grand Trunk Company are being greatly extended. The Allan Line has just constructed a magnificent new steamer for the spring and summer passenger traffic, and within the past month the Canadian and Brazilian Direct Mail Steamship Company has been introduced in connection with the Grand Trunk Company, two of whose directors are on the board. As this new enterprise enjoys a valuable subsidy from the Brazilian and Canadian Governments, it is deserving of support, and will, doubtless, prove a success.

Shareholders may rest satisfied in knowing that the same skillful and watchful management which has already accomplished so much for their benefit is still vigilant in their interests, hence the increasing popularity of the securities of this railway for investment. The Third Preference and Ordinary stocks having the greatest reversionary value are likely to show the most marked improvement.

**CANADIAN RAILWAYS FUSION.**—From recent correspondence it seems that the revival of the movement for a fusion of the Great Western and Grand Trunk Companies is welcomed not only by those Great Western shareholders who previously supported it but also by a large number who formerly were opponents. Notwithstanding the antagonism which may naturally be again expected from the board the shareholders appear at last to be thoroughly in earnest,

and those who have taken the initiative on this occasion are said to be very confident of success.

**PHILADELPHIA AND READING RAILROAD.**—Mr. Gowen has now returned to America to attend the meeting of shareholders on the 15th instant, and it is evident from the large amount of support which he has received that he will be re-elected president of the line, and thus be enabled to carry out his financial programme for the restoration of the company to its former high position. The new issue of Deferred Income Bonds is so manifestly advantageous to the interests of the company that there need not be the slightest hesitation or doubt as to its legality being recognised. When this point is finally settled the stock will certainly command a very much higher price than at present.

Totally apart from these considerations, however, the intrinsic value of the property is such that Mr. Jay Gould and other leading American capitalists have recently been buying to a very large extent, concurrently with similar purchases of New Jersey Central shares, which have advanced to 106, although the line is still in the hands of a receiver, and the dividend on the Income Bonds still remains unpaid. From this some idea may be formed of the estimate of value which experienced men in America put upon these railway and coal properties, and further that they share the views of Mr. Gowen, who declared at the recent meeting that "the company which

owns the coal for back freight will control the eastward-bound business." In my opinion both Ordinary and Deferred Stocks must improve in value.

**ATLANTIC, MISSISSIPPI, AND OHIO.**—At the sale in America on Feb. 10 this line was bought by the Louisville and Nashville Company. Full particulars will be furnished to the bondholders on the return of the committee in a few days.

**MEXICAN RAILWAY.**—The recently published traffic receipts continue to show considerable increases as compared with last year—the best evidence of the prosperity of the country.

**GREAT WESTERN RAILWAY.**—The dividend for the past half-year is an exceedingly good result of the working for that period, as the accounts are made up to Jan. 31, and this is, therefore, the only railway which has provided for the loss of traffic and increased working expenses resulting from and incidental to the severe snowstorms early in that month. But for this untoward occurrence the dividend would have been from  $5\frac{1}{2}$  to  $5\frac{3}{4}$  per cent. This stock is well worth buying.

**ISLE OF MAN RAILWAY.**—The dividend just announced at the rate of 6 per cent. per annum for the past half-year is an agreeable surprise. My own estimates, when recently recommending the shares, were that the distribution would be 5 per cent. At 57. 10s. per share with dividend, or 110% for stock, this security is clearly a

## THE QUARTZ HILL CONSOLIDATED GOLD MINING COMPANY

(LIMITED).

Copy of Telegram received from E. M. DOUGLAS, of the German National Bank, New Jersey, U.S.:—

To the Secretary of the Quartz Hill Gold Mining Company.

"Output of sixteen days' Mill run in January and February, SIXTEEN THOUSAND." Equal to £200 per day.

In purchasing the property mentioned in this prospectus, the company steps into a going concern, with mill, machinery, engines, pumping, and hoisting gear in working order. The stamp mill is within 250 feet of the main shaft, and is connected with the mine by an iron tramway. 52 stamps are erected, and there are 10 other stamps on the premises for erection. The mill is driven by an 80-horse power engine, with double boilers sufficient to drive 100 stamps. The buildings are substantial. The hoisting and pumping gear is driven by a 75-horse power engine and a 25-horse power engine, and the hoisting gear is capable of hoisting 300 tons of ore per day from a depth of 2000 feet. The Cornish pump is driven by a 40-horse power engine.

**DIVIDENDS.**—It is confidently anticipated that the proceeds will enable the company to pay quarterly dividends from the completion of the purchase.

## The Quartz Hill Consolidated Gold MINING COMPANY

(LIMITED).

The Mines of the Company are situate on QUARTZ HILL, GILPIN COUNTY, COLORADO, and are in working order.

"Quartz Hill is one of the grandest depositories of wealth that the world possesses. Here is a network of mineral veins, spurs, and feeders, and a number of great lodes, such as are rarely seen in any country. Millions in gold have been taken from this Hill, and there are millions in it yet."—See Fossett's "Colorado," page 324.

INCORPORATED UNDER THE COMPANIES ACTS, 1862 TO 1880.

CAPITAL £205,000, IN 205,000 SHARES OF £1 EACH.

Upwards of 100,000 Shares (including the Vendor's) having been already subscribed.

PAYMENT—2s. 6d. on application, 2s. 6d. on allotment, 7s. 6d. in two months, 7s. 6d. in three months.

### DIRECTORS.

Sir RICHARD GETHIN, Bart., Selwyn House, Hereford Road, Bayswater, W.  
WILLIAM ROEBUCK, Esq., West Lodge, Acton, Director of the Malta Railway Company.  
Colonel W. M. COCHRANE, The Hetton Colliery, Durham.  
A. HARLEY BACON, Esq., 13, Stanhope Place, Hyde Park, W.  
H. E. ROBINS, Esq., Clerk of the Peace of Southampton.

RESIDENT MINING MANAGER—Mr. JAMES C. FAGAN.

BANKERS—The ALLIANCE BANK (Limited), Bartholomew Lane, E.C.

BROKER—B. M. CLARKE, Esq., 4, Copthall Chambers, and Stock Exchange, London, E.C.

AUDITOR—J. M. HENDERSON, Esq., 2, Moorgate Street Buildings, E.C.

SOLICITORS—Messrs. ROBINS and SON, 86, Gresham House, E.C.

SECRETARY—Mr. EDWARD JENKINS.

OFFICES—16, TOKENHOUSE YARD, E.C.

### PROSPECTUS.

The object of this company is to purchase, carry on, and further develop the valuable gold mines and mining property known as the Kansas Consolidated Group, situate on Quartz Hill, Gilpin County, Colorado.

These mines comprise—about 2100 ft. on the Kansas lode;  
" 600 " Irish Flag lode;  
" 350 " Camp Grove lode;

and include also the Tennessee Tunnel lodes.  
A very full description of these mines, together with plates showing the position, working sections, &c., is given in Chapter XI. of Fossett's "Colorado," and where also an account of the enormous wealth of this district is graphically described.

The statements and particulars appearing in this prospectus have been received from Mr. Fagan, who has had the management of the property for some years.

The Kansas lode is one of the longest and most reliable fissure veins in the country, and from its heavy dip will command, at a greater depth, several of the finest lodes which are being worked parallel to it. At this junction it is expected a large deposit of ore will be met with.

The Irish Flag and Camp Grove lodes are true fissure gold-bearing veins, and run nearly parallel with the Kansas vein, from which they can be worked by cross-cuts.

**CHARACTER OF THE LODES.**—At the bottom of the main shaft the lode is at present 5 ft. wide, containing about 1 ft. of high-grade smelting ore, which realises about \$40 to \$102 per ton net, the remainder being milling ore, which mills from \$10 to \$15 per ton.

**DEVELOPMENT.**—On the Kansas lode one main shaft, 5 ft. by 12 ft., has been sunk 1150 ft. deep, one shaft 200 ft. deep, and one shaft 225 ft. deep, from which shafts over 7000 ft. of levels have been run, producing good paying ore. This main shaft is one of the deepest in Colorado, and at this great depth the ore is found to be richer than at any time during the working of the mine.

**PRODUCE OF THE MINES.**—The product from 600 ft. of this property, on the Kansas lode, by careful statistics show a yield of over \$600,000 since 1874. The first two years, however, of this period were occupied in putting up machinery, pumping out the mine, and making permanent developments. The workings prior to that date cannot be stated with exactness, but the product has been estimated at about \$400,000, making a gross product from this 600 ft. of ground at about \$1,000,000.

**FUTURE DEVELOPMENT.**—It is proposed to continue sinking the shaft to the west, which will connect with the levels from the main shaft. This will open out a large body of ore ground, and intersect several other lodes, and greatly increase the output.

The Irish Flag lode, the Camp Grove lode, the Tennessee Tunnel lodes, and over 1000 ft. of the Kansas lode west have never been worked by the late owners owing to want of capital.

**OUTPUT.**—The output that can be calculated upon depends upon the number of men employed. When the works are further developed, so as to call for the employment of extra hands, the returns will be proportionately increased. From ground opened out at present, steady returns—from £1500 to £2000 per month—may be confidently relied upon, commencing from the date of completion of purchase.

**WORKING CAPITAL.**—From the above it is estimated that, with ample working capital at command, large and increasing dividends will be assured.

**RAILWAY COMMUNICATION.**—The Colorado Central Railroad runs close by the property, labour is plentiful, climate is excellent, and works can be carried on throughout the year without any interruption.

The present position and success of the undertaking is due to the assiduous labours and energy of Mr. Fagan.

References as to these mines and the foregoing statements may be made to the—

First National Bank, Central City, Colorado;  
C. N. Jordan, Esq., Third National Bank, New York;  
D. W. Robinson, Esq. (J. Q. Preble and Co.), 77, White-street, New York;  
E. M. Douglas, Esq., German National Bank, Newark, New Jersey.

Mr. Douglas (of the German National Bank) in a letter dated 12th January, 1881, gives the following figures as taken from the statement furnished to him by the mining superintendent for December:—

Receipts from Tributes	\$1,048-98
Smelting Ores	1,361-30
Mill	5,873-60
	88,283-88
Expenses	4,033-99
Profit	\$4,249-89

And adds—"We are working slowly, and not pushing things at all. This ore all came out of one drift 1150 feet, the only one we are working at present. The mill dirt runs over 6 ozs. Only run the mill 15 days during the month. Are sinking the shaft; will have it down 1200 ft. by the 15th January; have first-rate vein in it. Craven has assayed the mill dirt, and finds it yield 14 ozs. per cord. The vein is improving every foot we go down, and when we begin to stop will give us something handsome, probably the best the mine has ever yielded."

The following information relating to these mines, is taken from a letter of the 8th January, 1881, written by the President of the First National Bank, Central City, Colorado:—"The mines are looking better and paying better now than for two years past. The main shaft is down 1200 ft., and yielding, as taken from the shaft, from 5 to 7 ozs. of gold, and smelting ore 60 to 90 and \$114 per ton net. The mill is in good running order, and the cost of milling is lower than ever before, about \$2-25 per ton. All our deep mines are doing well, and some remarkable. The titles to this property were looked fully into about a year ago, and no changes, transfers, or liens or debts exist on it, and besides, Government Patents are now obtained to the whole, which confirm the titles."

Intending shareholders are invited to inspect at the company's offices, these letters, and all the information to date which the company possesses relative to the property.

The company has secured the services of Mr. Fagan for three years as practical manager of the mines. He will be assisted by a confidential agent of the company, who will control the financial department at the mines. Mr. Fagan's long experience of the district will be invaluable to the company, and he has shown his confidence in the future, by undertaking the duties without a fixed salary, agreeing to accept as his remuneration a commission of £5 per cent. on the profits earned by the company.

The vendor is the promoter of this company, and has contracted to sell to the company the whole of the above mining property, buildings, machinery, stamps, &c., for the sum of £150,000, payable £65,000 in shares, and £85,000 in cash. The vendor undertakes to defray all expenses of and incidental to the formation of the company down to allotment. Upon allotment the company will contribute 2 per cent. on the capital towards such expenses.

Subjoined is a statement of the amount of precious metals produced in the States and Territories west of the Missouri River, including British Columbia (and receipts in San Francisco by express from the West Coast of Mexico) during the year 1880, taken from the Times of January 31st, 1881:—

States and Territories.	Total in 1880, including Base Bullion.	Total in 1879.
California	18,276,166	18,190,973
Nevada	15,031,621	21,987,714
Oregon	1,058,641	1,037,961
Washington	105,164	85,336
Idaho	1,894,747	2,081,300
Montana	3,822,379	3,629,020
Utah	6,450,953	5,468,879
Colorado	21,284,989	14,413,515
New Mexico	711,300	622,830
Dakota	4,123,081	1,942,403
Arizona	4,472,471	3,208,987
Mexico (West Coast)	2,090,557	1,683,871
British Columbia	844,867	976,742
Total	80,167,936	75,349,501

The following agreements have been entered into, viz.: one dated the 31st January, 1881, between James Chester Fagan of the one part, and William Woods Temple of the other part; and one dated the 5th February, 1881, between the said William Woods Temple of the one part, and Edward Jenkins, acting as trustee on the part of the company, of the other part.

These agreements, together with the Memorandum and Articles of Association, can be seen at the offices of the solicitors of the company.

All applications to be made on the enclosed form, and remitted to the bankers, The Alliance Bank (Limited), Bartholomew-lane, E.C.

Prospectus and Forms of Application can be obtained at the bankers, the solicitors, the brokers, and at the offices of the company.

Should no allotments be made the deposits will be returned in full.



cheap home railway investment. It is expected that the dividend for the current year will exceed that for 1880.

**ANGLO-AMERICAN TELEGRAPH.**—Last month I stated that "the miserable collapse of the injunction to restrain the payment of dividends is only what might have been expected." An announcement to this effect had been publicly made, but it seems to have been premature, as the catastrophe did not take place till last week, when the plaintiff and his suit collapsed together. The value of his investment in this company is limited to 16%, and this having only been acquired so recently as October last his anxieties can neither have been intense or prolonged. It is satisfactory that in accordance with the promise given by the Chairman at the recent meeting the traffic have now been published, and that, notwithstanding the reduction in the tariff, the receipts compare favourably with last year. This, with the removal of the insignificant though harassing litigation referred to, will surely tend very much to restore confidence and increase the value of the property.

**COAL AND IRON COMPANIES.**—Since the issue of my special circular on the 16th ult. considerable investments have been made in the Rhymney 7 per cent. debentures and the Llynvi and Tondy 7 per cent. preferences, both of which can still be bought to yield a very good return to investors. Further confirmation as to the improved prospects of the coal and iron trades was afforded at the recent meeting of the Llynvi Company. I still recommend investments in both securities.

**TRAMWAYS.**—It is surprising that the temporary non-success of a few tramways should have had the effect of depreciating the value of the shares of other sound and good dividend paying undertakings. Thus, the majority of these companies have announced dividends varying from 5 to 9 per cent., and yet in many instances the shares can be bought under par. German Tramways, for instance, paid 6 per cent. dividend, and the shares are at 9½, or 5 per cent. discount. Calais Tramways paying 6 per cent., can be bought at par (5½). Barcelona and Tramways Union both pay present investors from 5½ to 5½ per cent. Birkenhead Preference and Leeds yield about 5½, Bristol, Glasgow, Provincial and Wolverhampton return from 5 to 5½ per cent. The Bordeaux Company has just declared a dividend at the rate of 5 per cent., after making ample reserves, and carrying forward a large balance. Considering that some of the sections of this system of tramways are not yet ready for traffic, and that the other lines have been only opened at various intervals, this result is very satisfactory, and augurs well for the future. The remaining lines will be working immediately.

**CANADIAN COPPER AND SULPHUR COMPANY.**—A great event in the recent history of this company has been the sale last month, at a wonderfully good price, of the first consignment of ore, which on assay realised no less than 25 per cent. of copper. There is every indication of this property rapidly developing into one of exceptional value. The 4½ shares at the present price of 2½ 5s. are, therefore, cheap.

**INDIAN GOLD MINES.**—Shareholders in these properties will learn with great satisfaction that it is now only a matter of a few weeks when they may expect to hear of practical results from the quartz crushing on the estates of the South Indian and Indian Glenrock Companies, the machinery being at this moment in course of erection. When the stamps are set to work next month I firmly believe the working will be of a startling character, as all the best authorities agree in their testimony as to the vast auriferous wealth of the gold mines in this district.

**INDIAN PHOENIX GOLD MINE.**—Mr. Grove, the experienced manager of this company, is now on his way from Australia to India, taking with him the necessary machinery, and accompanied by a large staff of skilled Australian miners. I have good reason for believing that in addition to the rich quartz reefs on this property there exists also valuable alluvial deposits.

**INDIAN TREVELYAN GOLD MINE.**—Very encouraging advices have already been received from this the youngest of the Indian gold mining companies. While the shares are to be obtained at a small premium investors should avail themselves of the opportunity. — From Mr. Wm. Abbott's Circular for March, 10, Tokenhouse Yard, London, E.C.

**WANTED, NEW OR SECONDHAND CRUSHER,** suitable for Barytes Manufacturers. Quote price and particulars to WILLIAM BOUSTRED, Pontesbury, Salop.

**WANTED, PUMPING ENGINE,** from 70 to 80 in.—Particulars, &c., to be addressed to Capt. NICHOLLS, Camborne.

**MINING CAPTAIN OR WORKING MANAGER FOR IRON MINES** IN CUMBERLAND.

**WANTED, AN EXPERIENCED MAN,** capable of WORKING an IRON MINE where the ore is found in veins and pockets. Apply by letter, stating qualifications, salary required, previous experience, and whether able to analyse iron ore to "Iron." Care of Wm. Dawson and Sons, Advertisement Agents, 121, Cannon-street, London, E.C.

**WANTED, A MINING CAPTAIN, for a GOLD MINE** in SOUTH AMERICA. Unexceptionable testimonials as to experience, ability, and character required. Liberal salary. Apply, by letter, to J. H. THORNTON, 24, Finsbury Pavement, London, E.C.

#### METAL TRADE.

**WANTED, in an OLD-ESTABLISHED HOUSE** in the CITY, a SENIOR CLERK, having a general knowledge of the TRADE IN IRON and other METALS, and with a connection amongst shippers. The highest references required. Apply, by letter, with full particulars of qualifications, stating age, salary required, &c., to "Metal," care of J. W. Vickers, 5, Nicholas-lane, E.C.

**REQUIRED, A PURCHASER, or a GENTLEMAN,** who could FORM a COMPANY for WORKING a SPLENDID TIN SETT, situated in a district famous for successful Mines, and on the run of lodes that have yielded immense returns. Address, "R. W.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

**WANTED, OFFERS FOR THE FOLLOWING:**

Yniscledwyn Company ... £10 Shares.	Pandora Lead Mining Co. £2 Shares.
South D'Essey Mine ... 1 "	Ladywell Mining Com-
Tyn-y-Fron Lead Mine ... 1 "	pany, £1 Preference .....
West Craven Moor ... 10 "	Hulthall Mining Com. ... 5 "
Bickton Silver-Lead Com. 1 "	Ladies Dress Association. 5 "

Apply to WHITCOMBE and EMOSE, 1, Gresham Buildings, Basinghall-street, London, E.C.

**THE FLAGSTAFF DISTRICT SILVER MINING COMPANY** (LIMITED).

**NOTICE TO SHAREHOLDERS AND DEBENTURE-HOLDERS** IN THE OLD FLAGSTAFF COMPANY (now in liquidation). Applications for fully-paid shares in the above company at 5s. each should be made on or before WEDNESDAY, MARCH 9, instant, in accordance with the terms of my circular dated the 26th ult., copies of which, with forms of application, can be obtained from Messrs. LOUSADA and ENAMUREL, 15, Austinfriars, London, E.C.; or ALEXANDER KELLY, Esq., 14, Great Winchester-street, London, E.C., solicitors. M. C. VINCENT. March 3, 1881.

**FRONGOCH MINE (LIMITED).**—Notice is hereby given, that the HALF-YEARLY DIVIDEND to DECEMBER, 1880, at the rate of TEN PER CENT. PER ANNUM, will be PAYABLE upon the shares of the company on and after MONDAY, the 28th day of March next. By Order. 26, Change-alley, London, 24th February, 1881.

**MINE "EL CALLAO,"** GUAYANA, VENEZUELA.

**COUPONS ON SHARES**..... 322  
Gold in bars produced in the month of January, 1881, and re-mitted to Messrs. Baring Brothers and Co., London, 3943-15 ozs.  
DIVIDEND distributed for each coupon, \$100.  
(Signed) A. LICCIONI, President.  
(Signed) VICTOR T. GRILLET, Treasurer.

**THE NEW PENROSE TIN AND COPPER MINING COMPANY** (Limited).

The shares in this mine are recommended for immediate purchase at the present low price—viz., 20s. each. The chances of success in this mine are greater than in any property in Cornwall. Any week a rich lode may be cut, when the shares will probably advance to a very high price.  
Investors desirous of securing an interest should apply at once to the secretaries, Messrs. THOMPSON and SON, 14, Old Town-street, Plymouth.

**NORTH WALES.**  
**EXTENSIVE AND VALUABLE SLATE AND SLAB QUARRIES, FARMS, WORKS, COTTAGES, AND RAILWAY SHARES.**  
IN MERIONETHSHIRE.

**MESSRS. W. DEW AND SON WILL SELL, BY AUCTION,** at the Mitre Hotel, Cathedral Yard, Manchester, on Wednesday, the 16th day of March, 1881, at Two o'clock in the afternoon, subject to the conditions of sale to be then produced, the SLATE AND SLAB QUARRIES of the **ABERGYNOLWYN SLATE COMPANY** (LIMITED).

Situate at ABERGYNOLWYN, in the county of MERIONETH, now in full operation, with the extensive and valuable WORKING PLANT; the FREEHOLD LANDS of the Company, consisting of the inn and about 88 cottages in the village of Abergynolwyn; and the FARMS known as Pandy and Nant-llyn-Gwedd, containing altogether about 240 acres; the common rights connected therewith, and several small chief rents, amounting together to about £18 per annum; one-third interest in a piece of mountain land near the quarries, containing about 479 acres; also the farm and mineral leases held by the company, and 750 fully-paid up shares of £20 each in the Tal-y-Llyn Railway Company.

The QUARRIES, which extend over an area of about 1547 acres, are held for terms of which from 25 to 30 years are unexpired, at very moderate royalties. It is believed that there will be no difficulty in renewing the leases, the slate rock being practically inexhaustible. The slate veins are three in number, of which two, known as the north and south or broad and narrow veins, have been largely developed, and are in full working order, with tunnels, adit levels, chambers, tramways, inclines, reservoirs, water-wheels, &c. The machine-houses are five in number, and are conveniently situated. The slates and slabs are of admirable quality and in good demand, the sales in 1880 averaging 530 tons per month. The production could be much increased by a judicious expenditure of capital.

The PLANT, consisting of slate dressing machines, planes, saws, &c., is of the very best description for the manufacture of slates and slabs, and is turned by means of powerful water-wheels, turbines, engines, &c., all in first-class working order. The Tal-y-Llyn Railway Company, the whole of the shares in which are included in the sale, runs from the Abergynolwyn Station to Towyn, a distance of seven miles, where it joins the Cambrian Railway. The port of Aberdovey, at which vessels of 800 tons can be loaded, is distant four miles only by rail from the wharf at Towyn occupied by the company.

Portions of the land adjoining the village of Abergynolwyn are admirably adapted for building purposes. The passenger traffic on the railway is considerable. The quarries may be viewed on application to Mr. MEYERICK ROBERTS, at the quarries, Abergynolwyn; Mr. JOHN ROBERTS, at the Slate Wharf, Towyn, will answer enquiries as to the railway and other properties offered for sale; and the tenants of the farms, inn, and cottages will show their respective holdings.

Copies of the leases held by the company may be inspected at the offices of Messrs. Orford and Milne.

Printed particulars, with plan, are in preparation, and may be obtained from the Auctioneers, Bangor and Rhyl; at the Corbet Arms and Cambrian Hotels, Towyn; from Mr. JAMES STEVENS, Architect and Surveyor, 83, Mosley-street, Manchester; and Messrs. ORFORD and MILNE, Solicitors, 87, Fountain-street, Manchester.

**MINE FOR SALE, BY PUBLIC AUCTION.**—On Monday, the 14th March, 1881, at Nine A.M., WILL BE SOLD, BY PUBLIC AUCTION, at LUGANO, SWITZERLAND, at the Tribunal of that City, the VALUABLE SILVER AND GOLD MINE, called

#### "CAMERE."

Situated in the Commune of MIGLIEGLIA, formerly owned by Signori BAGLIONI and FRANZI. The property will be put up at 150,000 fr.; deposit, 10,000 fr. Conditions of sale are to be obtained of the Advocates, CARLO BATTAGLINI, Leone de Stoppini; and GIOVANNI SOLDATI, Lugano.

**CROW'S HOUSE ESTATE.**  
In the township of THORNLEY, parish of KELLOE, in the county of DURHAM. PRELIMINARY ANNOUNCEMENT.

**THE ABOVE VALUABLE FREEHOLD ESTATE,** comprising 355 acres or thereabouts, together with the COAL and other ROYALTIES, will be OFFERED, BY PUBLIC AUCTION, in the month of April next, by Mr. THOMAS WETHERELL, at the Three Tuns Hotel, Durham, in Two Lots, viz.:—The FARMS, FARMHOUSES, and BUILDINGS the first lot; and the MINERALS the second lot.

Further particulars will appear in future advertisements, and plans and conditions of sale will be ready for issue by the 20th of March, to be had on application to Messrs. MALLETT BROTHERS, Chartered Accountants, 21, Collingwood-street, Newcastle-on-Tyne; Mr. THOMAS WETHERELL, Auctioneer, Durham; and of D. E. STANFORD, Esq., Solicitor, 21, Collingwood-street, Newcastle-on-Tyne.

#### NORTH WALES.

**PRELIMINARY ANNOUNCEMENT OF SALE OF THE VALUABLE SLATE PROPERTY KNOWN AS THE CROESOR NEW SLATE QUARRY, LLANFROTHEN, MERIONETHSHIRE.**

**THIS VALUABLE PROPERTY,** consisting of about TWO HUNDRED ACRES OF QUARRY LAND, with QUARRY WORKS, PLANT, MACHINERY, MILLS, WORKSHOPS, BARRACKS, MANAGER'S HOUSE, and EIGHT WORKMEN'S COTTAGES, will be OFFERED FOR SALE, BY PUBLIC AUCTION, in APRIL next.

The property is held for an unexpired term of 35 years, subject to a nominal dead rent of £1 1s. per annum, and no royalty. The lease contains a covenant for renewal at the end of that term for 20 years at a moderate royalty.

The date of sale and further particulars will appear in future advertisements. For particulars, apply to Mr. J. E. JONES, 16, Bank-place, Portmadoc.

**TO BE SOLD, BY PRIVATE TREATY, a LEAD MINE** in the County of FLINT. Good ore to work on; rocks of solid ore to be seen over 2 cwt. A BARGAIN, if secured at once. Apply to "J. R. W.," Red Lion Hotel, Holywell. February 28, 1881.

**TO BE SOLD, the LANCASTER COUNTY SILVER-LEAD AND ZINC MINES,** situated near Landsville, Lancaster County, Pennsylvania, together with the BELGIAN REDUCTION FURNACES, CALCINING FURNACES, POTTERY, RETORT KILN, with full equipment of CRUSHING and PRESSING MACHINERY, complete, on the most modern improved principles.

There are three powerful engines for hoisting, pumping, and working all the above machinery, together with 106 acres of land, farm buildings, eleven dwelling houses, work-shops, store-rooms, offices, &c.

For further particulars, apply to Mr. W. S. THOMPSON, 13, Broadway, New York; Mr. THOMAS KENT, Oriental Buildings, La Salle-street, Chicago; or to BARNFORD BROTHERS, Cheapside, Liverpool, England.

**SURPLUS MACHINERY FOR SALE.**—ONE DIRECT-ACTING BULL ENGINE, 80 in. cylinder, 11 ft. stroke. SIX EDGE-ENDED STEAM BOILERS, 30 ft. by 5 ft. diameter, with mountings complete, and connections for same. ONE 24 in. WINDING BEAM ENGINE, with 12 ft. drum. ONE 24 in. PUMPING BEAM ENGINE, with pumping shaft, crank, and gearing wheels.

For further particulars, apply to Mr. JAMES HOGG, Govan Ironworks, Glasgow.

#### WIVELISCOMBE, SOMERSET.

**TO BE LET, BY TENDER, for a Term to be agreed upon, from** Lady-day, 1881, all that EXCELLENT SLATE QUARRY, called **OAKHAMPTON QUARRY,**

Situate in the parish of WIVELISCOMBE, in the county of Somerset, which for many years past has been worked by the WIVELISCOMBE SLATE COMPANY (LIMITED), whose term expires at Lady-day next. The premises comprise a house for the Manager, and 45 A. 2 R. 37 P. of LAND.

To view the quarry, application to be made to HENRY BELLEW, Esq., of Oakhampton House, Wiveliscombe, the owner; and for further particulars, and to inspect the draft of the proposed lease, apply to Mr. A. K. PAYNE, Solicitor, Milverton, Somerset, to whom Tenders in writing should be sent on or before the 28th day of February, 1881.

Dated Milverton, 11th January, 1881.

**FIRE AND STORM-PROOF IRON ROOFING.**—VERY STRONG and FIRST-CLASS IRON ROOFS, up to 50 feet span erected complete, just now much under usual prices, from special lots; also 220 TONS MATERIALS in stock, admirably suited for IRONWORKS, FORGES, ROLLING MILLS, COLLIERIES, IRON FOUNDRIES, SHIP-BUILDING YARDS, ENGINEERS' SHOPS, WAREHOUSES, WORKSHOPS, and MANUFACTURING, AGRICULTURAL, and OTHER PURPOSES. ALSO COMPLETE IRON BUILDINGS, all sizes, cheap; about 12,000 GALVANISED CORRUGATED SHEETS, various lengths, 25 gauge, at 2d. per superficial foot—£10 lots delivered free. Apply to—ISAAC DIXON, WINDSOR IRON WORKS, LIVERPOOL.

**ENGINES, BOILERS, &c., FOR SALE:**—FIRST-CLASS 50-inch cylinder PUMPING ENGINE.

ditto 24-inch " ROTARY ENGINE

CALCINER, STONEBREAKER, &c.

Apply to Capt. NICHOLLS, Camborne.

**ALEXANDER SMITH, M. Inst. C.E., CONSULTING ENGINEER and VALUER of IRONWORKS, MINING, RAILWAY, ENGINEERING, and other PROPERTY, PLANT, and MACHINERY, 1, PRIORY STREET, DUDLEY.**

Mr. SMITH has been retained for nearly 20 years by some of the most prominent firms, and has conducted many of the largest valuations that have taken place in the kingdom.

Valuations for Stock Taking or any other purpose upon very reasonable terms.

#### SHAREHOLDERS SHOULD READ

The Monthly Report, with the List of Safe Investments, in THE STOCK EXCHANGE REVIEW,

**MESSRS. MILLS, SAUNDERS, AND CO.,** STOCK AND SHARE BROKERS, 6, NORTH STREET QUADRANT, BRIGHTON.

Business transacted in all leading Securities—Rails, Banks, Gas, Telegraphs, Shipping, Mining, and Miscellaneous Securities.

**WE PAY SPECIAL ATTENTION TO THE FOLLOWING:—**

#### GAS COMPANIES.

Alliance	Ceara	Malta	Shanghai
Barnet	Continental	Monte Video	San Paulo
British	European	Nichteroy.	Metropolitan
Brentford.	George Town	Oriental	S. Phoenix
Brighton	Hong Kong	Ottoman	S. Light
Bahia	Imperial	Pana	Tottenham
Bombay	Liverpool	Petersburg	Wandsworth
Commercial	London	Rio	West Ham
Cagliari	Mauritius	Singapore	

#### TELEGRAPHS.

Anglo-American	Eastern and S. African	Reuter's
Black Sea	German Union	Submarine
Brazilian Submarine	Globe	W. Coast America
Cuba	Great Northern	W. India and Panama
Direct Spanish	Indo European	Western and Brazilian
Direct United	London P. Brazilian	Western Union
Eastern	Mediterranean	

#### STEAMSHIP COMPANIES.

African	Commercial	Royal Mail
Amazon	London	Union Steamship
Commercial	Merchant	Union of N. Zealand
Cunard	National	Royal Exchange
General	Peninsula	W. India and Pacific

#### TRAMWAYS.

A. Argentine	Buenos Ayres	Leeds	Southampton
Barcelona	Dublin	Liverpool	Sunderland
Birkenhead	Dublin Central	London	France
Bordeaux	Edinburgh	London Street	Germany
Brazilian	Glasgow	Metropolitan	Trams & G. Wks
Bristol	Hull	Nottingham	Tramway Union
Chester	Imperial	Provincial	Wolverhampton
		Sheffield	

**BRITISH AND FOREIGN MINES BOUGHT AND SOLD AT CLOSE MARKET PRICES.**

**SPECULATIVE ACCOUNTS NOT OPENED ON ANY TERMS.**

MILLS, SAUNDERS, AND CO.,

6, NORTH STREET QUADRANT, BRIGHTON.

#### TO PARENTS AND GUARDIANS.

**AN ELIGIBLE OPPORTUNITY** is now offered for the SETTLEMENT of an ACTIVE YOUNG GENTLEMAN IN CANADA. He will be enabled to obtain his profession as a Solicitor in five, or if he be a Graduate in three years. Cost of living about £150. In the meantime he will have active work, and obtain a knowledge of the Dominion, which is destined to become one of the most prosperous of the Colonies. Premium, £100 sterling.

HERBERT C. JONES,

32, Wellington-street, Toronto. Canada Land and Loan Agency.

Complete in Four Volumes, with 2500 Woodcuts, price £7 7s. cloth, or £3 16s. half bound in Russia.

**URE'S DICTIONARY OF ARTS, MANUFACTURES, AND MINES,** containing a CLEAR EXPOSITION of their PRINCIPLES and PRACTICE. The Seventh Edition, re-written and enlarged.

Edited by ROBERT HUNT, F.R.S., Keeper of Mining Records. Assisted by numerous Contributors eminent in Science and familiar with Manufactures.

"This Supplement is in every way worthy of the original work, and will form a valuable addition to the library of the miner, manufacturer, and metallurgist."—*Popular Science Review*.  
"All who possess Mr. Hunt's edition of Ure's Dictionary, and all who purpose to purchase the work, will welcome this supplementary volume. It purports to contain 'everything relating to arts, manufactures, and mines which has claimed attention since the publication of the previous volume, and to represent faithfully the state of these divisions of human industry up to the commencement of the year 1879.' It is sufficient to remark that this purpose is well fulfilled, and to commend the volume to our readers."—*Lancet*.

London: LONGMANS and Co.

Just Published, post free 1½ stamps.

**"SOW AND REAP."**—A Monthly for Investors. Contains highly interesting information on Stocks, Shares, and Mining Matters, Gold in Cornwall, A New Cornish Industry, The Stock Exchange, The Metal Trade, Highly Profitable Investments and Recommendations. Published by THOMPSON and SON, 14, Old Town Street, Plymouth.

**THE COLLIERY READY-RECKONER AND WAGES CALCULATOR.**  
By JAMES IRELAND.

"Will be the means of preventing many disputes between pay clerks and colliers."—*Mining Journal*.  
To be had on application at the MINING JOURNAL Office, 26, Fleet-street, E.C.

#### MAPS OF THE MINES, AND OF UTAH TERRITORY.

**FROISETH'S NEW AND REVISED MAP FOR 1875.**—Size 40 by 56 inches, scale 3 miles to the inch. Handsomely engraved, coloured in counties, showing the Towns, Settlements, Rivers, Lakes, Railroads, Mining Districts, &c., throughout the Territory, and all the Government Surveys to date. Mounted on cloth, £2; half-mounted, £1 12s.; pocket form, £1. Also, GENERAL MINING MAP OF UTAH, showing twenty-eight of the principal Mining Districts adjacent to Salt Lake City, and location of the most prominent mines. Price, pocket form, 6s.

Also, NEW MAP OF LITTLE AND BIG COTTONWOOD MINING DISTRICTS showing the location of over Four Hundred Mines and Tunnel Sites, together with the Mines Surveyed for United States Patent. Price, sheets, 6s.; pocket form, 8s.

For sale, and supplied by—TURNER and Co., 57 and 59 Ludgate Hill, London.

B. A. M. FROISETH, Salt Lake City, Utah, U.S.A.

**THE UNDERSIGNED, having secured the Grants of several VALUABLE MINERAL PROPERTIES (TIN AND COPPER), in the St. Blazey District, in the vicinity of Fowey Consols, &c., is DESIROUS of OBTAINING the CO-OPERATION of CAPITALISTS for their EXPLORATION.** There is little or no risk involved in the undertakings, and the capital required in each case is very limited. R. SYMONS.

11, Parade, Truro, 3rd February, 1881.

**MAP OF CALLINGTON, CALSTOCK, AND TAVISTOCK MINING DISTRICTS.**

Proposed to be published by subscription, a MAP of the ABOVE DISTRICTS, showing the names and boundaries of all existing settlements, roads, cross-roads, and every other matter which such a map should contain. Persons disposed to patronise the publication—at One Guinea per copy—will please send their names as early as possible to me. R. SYMONS, Mineral Surveyor, Truro. February 3rd, 1881.

#### COPPER ORES.

Sampled Feb. 9, and sold at the Royal Hotel, Truro, Feb. 24.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Devon Great Consols...	102	£1 8 0	Wheal Crebor...	85	£3 14 0
ditto	101	1 12 0	South Caradon...	85	4 7 6
ditto	98	1 8 0	ditto	83	4 4 6
ditto	97	1 8 0	ditto	81	4 13 6
ditto	95	1 4 6	ditto	69	5 4 0
ditto	92	1 6 6	ditto	52	9 19 0
ditto	91	1 4 8	Marke Valley	65	2 0 0
ditto	83	5 17 6	ditto	51	4 2 0
ditto	77	1 8 0	ditto	50	2 8 6
ditto	52	6 10 6	ditto	38	2 8 6
Wheal Crebor	98	3 3 0	Glasgow Caradon	54	3 6 6
ditto	93	3 7 0	ditto	42	4 7 6
ditto	92	3 14 0	ditto	49	4 3 0
ditto	91	3 15 0	ditto	41	3 19 6
ditto	90	3 1 6			

**TOTAL PRODUCE.**  
Devon Great Con. 888 ..... £1851 17 6  
Wheal Crebor ..... 549 ..... 1893 3 0  
South Caradon ..... 370 ..... 1979 3 0

Average standard ..... £100 5 0 | Average produce ..... 5%  
Average price per ton ..... £3 4 0  
Quantity of ore ..... 2207 tons | Quantity of fine copper, 131 tons 0 cwt.

Amount of money ..... £7063 13 0  
LAST SALE.—Average standard... £95 11 0 | Average produce ..... 6%  
Standard of corresponding sale last month, £95 6 0 | Produce, 6%

#### COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons.....	600	£1925 8 3
Grenfell and Sons.....	475½	1







# NOBEL'S DYNAMITE



Manufactured and sold by  
**NOBEL'S EXPLOSIVES COMPANY (LIMITED), 149, West George Street, Glasgow.**

AGENTS EXPORT: J and G. THORNE, 85, GRACECHURCH STREET, LONDON, E.C.

FACTORIES--ARDEER WORKS, STEVENSTON, Ayrshire.  
 WESTQUARTER WORKS, POLMONT STATION, STIRLINGSHIRE.

Supplies may be obtained from any of the following Agents of the Company in Great Britain:—

HENRY KITCHIN and CO., 46, Lowther-street, Whitehaven.  
 F. H. EDWARDS, Forth House, Newcastle-on-Tyne.  
 TANSON, ARMSTRONG, and CO., Middlesbro'-on-Tees.  
 ALBERT RICKETTS, Dean-lane, Bedminster, Bristol.  
 B. READ, Reforme, Portland, Dorsetshire.  
 LEIGH and SILLAVAN, Barton House, 66, Deansgate, Manchester.  
 GEORGE ROBERTS, George-street, Gloucester.  
 J. H. BEAN and CO., 6, Albion-street, Leeds.  
 Wm. RICH and SONS, 4, Basset-street, Redruth, Cornwall.  
 CROSS BROTHERS, 21, Working-street, Cardiff.  
 G. WILLIAMS, 6 and 7, Baker-street, Aberystwith.  
 WEBB and CO., Llanberis, Caernarvon.  
 J. T. EACHUS, Holywell.

JOHNSON and CO., Tower-street Dudley.  
 TODHUNTER and ELLIOT, Market-place, Douglas, Isle of Man.  
 ROBERT HAMILTON, 29, St. James-square, Edinburgh.  
 JOHN DONALD, 4, Belmont-street, Aberdeen.  
 WILLIAM WATSON, Sunnyside-road, Coatbridge.  
 ROBERT HAMILTON, Douglas-street, Dunfermline.  
 JOHN D. M'JANNET, Park-place, Sterling.  
 GEORGE STEPHEN and SON, Castle-street, Dundee.  
 R. and J. CARSON, 8 and 10, Corn Market, Belfast.  
 SAMUEL BOYD, 46, Mary-street, Dublin.  
 CLOHERTY and SEMPLE, Merchants'-road, Galway.  
 COOKE BROTHERS, 67, Patrick-street, Cork.

## THE COTTON POWDER COMPANY (LIMITED)

RECOMMEND TO CONTRACTORS, MINERS, PIT SINKERS, QUARRYMEN, AND OTHERS, THEIR

### TONITE, OR COTTON POWDER,

AS BEING THE SAFEST, CHEAPEST, AND STRONGEST OF ALL EXPLOSIVES.

TONITE is the most efficient and economical blasting agent ever invented, and is largely in demand. It does not contain any Nitro-glycerine, and is, therefore, exempt from the dangers of exudation, or of freezing and its attendant process of thawing.

The Company also manufacture PATENT DETONATORS of a quality much superior to the foreign article. The trade supplied on favourable terms.

**23, QUEEN ANNE'S GATE, LONDON, S.W.**

WORKS: FAVERSHAM, KENT.

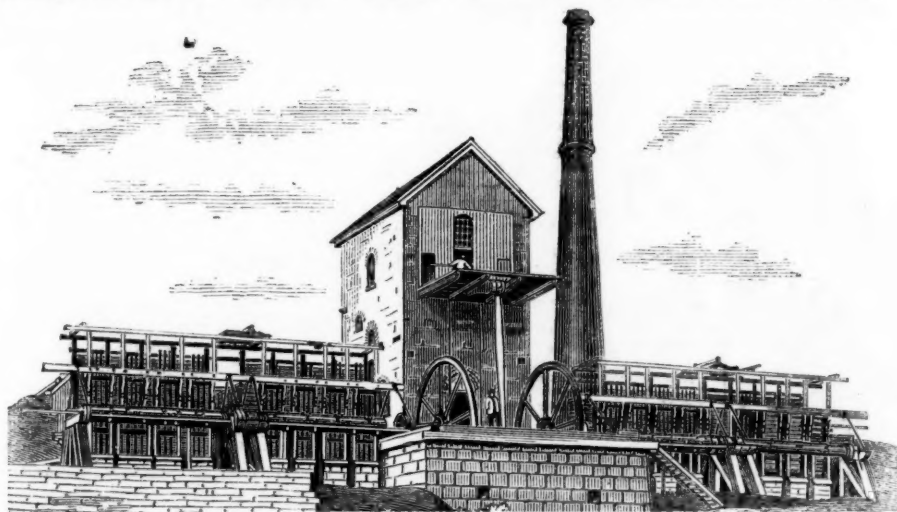
Agents DINEEN, SON, and CO., Leeds; DAVID BURNS, Halkwhistle; R. J. CUNNACK, Helston, Cornwall; J. and W. SMITH, Chapel-en-le-Frith; W. VEITCH, Jedburgh, N.B.; W. HARRISON, Barrow-in-Furness.

## THE TUCKINGMILL FOUNDRY COMPANY,

(TUCKINGMILL FOUNDRY AND ROSEWORTHY HAMMER MILLS),

CAMBORNE, CORNWALL,

Engineers, Iron and Brass Founders, &c.



REGISTERED TRADE MARK.

MANUFACTURERS OF EVERY DESCRIPTION OF

REGISTERED TRADE MARK.



**PUMPING, WINDING, AND STAMPING ENGINES**

ALL KINDS OF

**MINING MACHINERY, SHOVELS, AND 'MINERS' TOOLS;**

ALSO OF

**BLAKE'S STONE BREAKERS.**

ESTIMATES GIVEN UPON INDENTS AND SPECIFICATIONS.

ILLUSTRATED CATALOGUES POST FREE ON APPLICATION

LONDON OFFICE: 85, GRACECHURCH STREET, E.C.

Also the best WINDING and HAULING ENGINES, BOILERS, PUMPS, &c., &c. GUINAL VENTILATING FANS, AIR RECEIVERS, WAGONS, PIT-HEAD STOCKS, SCHRAM'S STONE-CUTTING MACHINE, and every description of COLLIERY and MINING PLANT and CASTINGS. Illustrated Catalogues and Price Lists, and references to places where the machinery may be seen in operation, on application at 9, Northumberland-street, or at Chesterfield.

**THE MINING RECORD.** Only \$3.00 a year

61, BROADWAY, NEW YORK.

is the ONLY PAPER in the United States that gives FULL LATEST ACCOUNT

from all the GREAT GOLD, SILVER, IRON, and COAL MINES of AMERICA.

ORDERS EXECUTED FOR MINING STOCKS. Information free

ALSO, CHISHOLM, Proprietor.

London Office—H. J. CHAWNER Manager, 3, Catherine-street, Strand, W.

**MR. WILLIAM BREDEMAYER, MINING, CONSULTING**

and CIVIL ENGINEER, U.S. MINERAL SURVEYOR for UTAH and

IDAHO. NOTARY PUBLIC.

Geological examinations; reports on mining properties; surveys mines, rail-

roads, and canals, and superintends the workings of the same; prepares esti-

mates and plans for opening and working mines. Expert on mining questions

before the Courts. Address, P.O. Box 1157, Salt Lake City, Utah.

For Excellence  
 and Practical Success  
 of Engines.



Represented by  
 Model exhibited by  
 this Firm.

**HARVEY AND CO.,**  
 ENGINEERS AND GENERAL MERCHANTS  
 HAYLE, CORNWALL

LONDON OFFICE.—186, GRESHAM HOUSE, E.C.

MANUFACTURERS OF  
 PUMPING and other LAND ENGINES and MARINE STEAM ENGINES  
 of the largest and most approved kinds in use, SUGAR MACHINERY,  
 MILLWORK, MINING MACHINERY, and MACHINERY IN GENERAL.

SHIPBUILDERS IN WOOD AND IRON

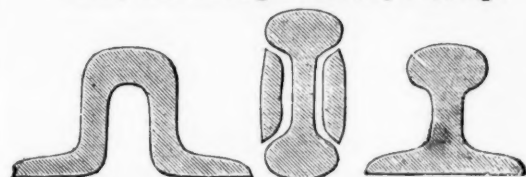
HUSBAND'S PATENT PNEUMATIC STAMPS

SECOND-HAND MINING MACHINERY FOR SALE,

IN GOOD CONDITION, AT MODERATE PRICES—viz.

PUMPING ENGINES; WINDING ENGINES; STAMPING ENGINES;  
 STEAM CAPSTANS; ORE CRUSHERS; BOILERS and PITWORK of  
 various sizes and descriptions; and all kinds of MATERIALS required for  
 MINING PURPOSES.

**JOHN BEATSON & SON,**  
 40h, St. Mary's Gate, Derby.



**IRON AND STEEL RAILS**, of all sections, from 10 to 86 lbs. per  
 yard, new perfect, new slightly defective, or second-hand, with Fish-plates  
 Bolts and Nuts, Chairs, Spikes, and Points and Crossings to match, when re-  
 quired.

**STEEL AND IRON WIRE ROPES, LOCOMOTIVE ENGINES, &c., &c.**

**STEEL OF ALL KINDS. PIG IRON OF ALL KINDS**

Delivered at all Railway Stations and Ports in Great Britain

## DUNN'S IMPROVED ROCK DRILL.

This DRILL is of GREAT  
 STRENGTH and SIMPLICITY  
 SECOND TO NONE IN THE  
 KINGDOM.

We are prepared to SUPPLY  
 our well known MACHINES at  
 greatly REDUCED PRICES—  
 from £35, according to calibre  
 of cylinder

ESTIMATES GIVEN FOR PLANTS, &c., &c.

**Dunn's Patent Rock Drill Company**

(LIMITED),

OFFICE,—193, GOSWELL ROAD,  
 LONDON, E.C.

**W. TREGAY, Mining Engineer, REDRUTH,**  
 Having had many years' practical experience in Metallic Mines,  
 prepared to INSPECT, REPORT, and ADVISE on every description  
 of MINERAL PROPERTY

MEXICO, NEW MEXICO ARIZONA, UTAH, NEVADA  
 AND CALIFORNIA.

**F. M. F. CAZIN,**

MINING AND CIVIL ENGINEER,

At BERNALILLO, NEW MEXICO, U.S. OF AMERICA.

Has 24 years' experience in Mining and Smelting, and 10 years experience  
 American Business and Law, offers his services at moderate charges for Reporting  
 on Mining and other Property in any of the above-named States or Territories  
 gives correct, safe, and responsible advice as to securing full titles and possession  
 and, as to best mode of utilising the property, will assist in settling existing diffi-  
 culties by compromise, and in disposing of developed mining property when held  
 at real value; offers his assistance for securing undeveloped mining properties at  
 home prices. As to care taken in reporting, reference is made to the Mining Journal  
 Supplement, April 1, 1876, containing a report on property of the Maxwell Land  
 Grant and Railway Company; as to technical standing, to the prominent men of  
 the trade—compare Mining Journal of Aug. 30 and Nov. 31, 1872, and New York  
 Engineering and Mining Journal, Feb. 28, 1874.

**ALEX. DEL MAR,**

MINING ENGINEER,

Formerly Director of the Bureau of Statistics of the United States, Superin-  
 tendent of the United States Special Commissioners of Mines, Mining  
 Commissioner for the United States Monetary Commission,

author of a "History of the Precious Metals," &c.,

216, SANSOME STREET, SAN FRANCISCO, CALIFORNIA.

Mining Properties surveyed and reported upon. Assays and quantitative

analyses made of ores, &c.

Second Edition. Just Published, price 6s. 6d.

**A NEW GUIDE TO THE IRON TRADE**  
 OR MILL MANAGERS' AND STOCK-TAKERS' ASSISTANT;  
 Comprising a Series of New and Comprehensive Tables, practically arranged to  
 show at one view the Weight of Iron required to produce Boiler-plates, Sheet-iron,  
 and Flat, Square, and Round Bars, as well as Hoop or Strip Iron of any dimensions.  
 To which is added a variety of Tables for the convenience of merchants, including  
 a Russian Table.  
 By JAMES ROSE.  
 Bateman's Hill Ironworks, Bradley, near Bilston.

OPINIONS OF THE PRESS.

"The Tables are plainly laid down, and the information desired can be instantly  
 accurately obtained."—Mining Journal.

"900 copies have been ordered in Wigan alone, and this is but a tithe of those  
 whom the book should commend itself."—Wigan Examiner.

"The Work is replete on the subject of underground management."—M. BANK  
 Colliery Proprietor.

To be had on application at the MINING JOURNAL Office, 26, Fleet-street, London

Just published.

**THE NORTH WALES COAL FIELD**  
 Being a series of Diagrams showing the Depth, Thickness, and Local Names  
 of the Seams in the principal Collieries of the various districts, with Index, Geo-  
 logical Map, and horizontal sections across the Ruabon, Brymbo, Buckley, and  
 Mostyn districts.  
 By JOHN BATES GREGORY and JESSE PRICE,  
 of Hope Station, near Mold, Flintshire.

Price: Mounted on holland, coloured and varnished, and fixed on mahogany  
 rollers, 30s. each; or in book form, 12x9, mounted and coloured, 25s. each.

May be obtained, by order, of all Booksellers or direct from the MINING  
 JOURNAL Office, 26, Fleet-street, London, E.C., upon remittance of Post Office  
 Order for the amount.

DEBILITY AND NERVOUSNESS.

Free Edition, 152 pages, post free, in envelope, two stamps. The  
**WARNING VOICE.**—A Special Medical Book for Young Men  
 on the Cause, Consequence, and Treatment of certain forms of Debility  
 and Nervousness, viz.—Mental and Physical Depression, Palpitation of the Heart  
 Noises in the Head and Ears, Impaired Sight and Memory, Indigestion, Pains in  
 the Back, Headache, Piles, Constipation, Hysteria, Dizziness, Local Weakness,  
 Muscular Relaxation, Nervous Irritability, Blushing, &c., resulting from Exhaustion  
 of Nerve power, effect of Overwork, City Life, Worry, Brain Toil, Intemper-  
 ance, and other abuses of the system.  
 Address, Dr. H. SMITH, 8, Burton Crescent, London, W.C.



## THE MINING SHARE LIST.

## BRITISH DIVIDEND MINES.

Shares.	Divid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd.
3939 Blue Hills, t, c, St. Agnes	1 0 0	2 1/2	3 1/2	2 0 0	2 0 0	Sept. 1880
10000 Blue Hill, t, c, St. Agnes	1 0 0	2 1/2	3 1/2	2 0 0	2 0 0	Oct. 1878
10000 Blue Hill, t, c, St. Agnes	1 0 0	2 1/2	3 1/2	2 0 0	2 0 0	Feb. 1874
10000 Blue Hill, t, c, St. Agnes	1 0 0	2 1/2	3 1/2	2 0 0	2 0 0	Dec. 1880
10000 Blue Hill, t, c, St. Agnes	1 0 0	2 1/2	3 1/2	2 0 0	2 0 0	Dec. 1880
10000 Blue Hill, t, c, St. Agnes	1 0 0	2 1/2	3 1/2	2 0 0	2 0 0	Dec. 1880
10000 Blue Hill, t, c, St. Agnes	1 0 0	2 1/2	3 1/2	2 0 0	2 0 0	Dec. 1880
10000 Blue Hill, t, c, St. Agnes	1 0 0	2 1/2	3 1/2	2 0 0	2 0 0	Dec. 1880
10000 Blue Hill, t, c, St. Agnes	1 0 0	2 1/2	3 1/2	2 0 0	2 0 0	Dec. 1880
10000 Blue Hill, t, c, St. Agnes	1 0 0	2 1/2	3 1/2	2 0 0	2 0 0	Dec. 1880

## FOREIGN DIVIDEND MINES.

Shares.	Divid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd.
35500 Alamos, t, Spain	2 0 0	1 1/2	1 1/2	2 0 0	2 0 0	Sept. 1880
10000 Alamos, t, Spain	2 0 0	1 1/2	1 1/2	2 0 0	2 0 0	Sept. 1880
10000 Alamos, t, Spain	2 0 0	1 1/2	1 1/2	2 0 0	2 0 0	Sept. 1880
10000 Alamos, t, Spain	2 0 0	1 1/2	1 1/2	2 0 0	2 0 0	Sept. 1880
10000 Alamos, t, Spain	2 0 0	1 1/2	1 1/2	2 0 0	2 0 0	Sept. 1880
10000 Alamos, t, Spain	2 0 0	1 1/2	1 1/2	2 0 0	2 0 0	Sept. 1880
10000 Alamos, t, Spain	2 0 0	1 1/2	1 1/2	2 0 0	2 0 0	Sept. 1880
10000 Alamos, t, Spain	2 0 0	1 1/2	1 1/2	2 0 0	2 0 0	Sept. 1880
10000 Alamos, t, Spain	2 0 0	1 1/2	1 1/2	2 0 0	2 0 0	Sept. 1880
10000 Alamos, t, Spain	2 0 0	1 1/2	1 1/2	2 0 0	2 0 0	Sept. 1880

Have made calls since last dividend was paid.

## NON-DIVIDEND BRITISH MINES.

Shares.	Divid.	Last wk.	Clos. pr.
30000 Alston United, t, c, Cumberland	1 0 0	1 1/2	1 1/2
12000 Assheton, t, c, Carnarvonshire	1 0 0	1 1/2	1 1/2
10000 Atlantic, t, c, (res. shares 22,000)	1 0 0	1 1/2	1 1/2
36000 Basset & Buller Cons., t, c, Illogan	1 0 0	1 1/2	1 1/2
11533 Bedford Unit, t, c, Tavis (11 ab.)	1 0 0	1 1/2	1 1/2
25000 Belwda, t, c, Roche	1 0 0	1 1/2	1 1/2
30000 Bettws-y-Coed, t, c, (20000 sh. issued)	1 0 0	1 1/2	1 1/2
8000 Blaen Caelan, t, c, Cardigan	1 0 0	1 1/2	1 1/2
30000 Bodidris, t, c, Denbighshire	1 0 0	1 1/2	1 1/2
800 Botallack, t, c, St. Just	1 0 0	1 1/2	1 1/2
10000 British, t, c, Wrexham	1 0 0	1 1/2	1 1/2
20000 Brwh United, t, c, Cardigan	1 0 0	1 1/2	1 1/2
50000 Cambrian, t, c, Cardigan	1 0 0	1 1/2	1 1/2
6000 Carn Camborne, t, c, Camborne	1 0 0	1 1/2	1 1/2
20000 Carnarvon, t, c, Carnarvonshire	1 0 0	1 1/2	1 1/2
20000 Central Foxdale, t, c, Man (21 sh.)	1 0 0	1 1/2	1 1/2
25000 Coal Mawr, t, c, Carnarvon	1 0 0	1 1/2	1 1/2
2450 Cook's Kitchen, t, c, Illogan	1 0 0	1 1/2	1 1/2
15500 Court Grange United, t, c, s-l	1 0 0	1 1/2	1 1/2
6400 Crook Burn, t, c, Cumberland	1 0 0	1 1/2	1 1/2
14000 Crosswood Mining Lands, t, c	1 0 0	1 1/2	1 1/2
15000 Cwm Dyvor, t, c, s-l, Carnarvon	1 0 0	1 1/2	1 1/2
25000 Cwm Pryf, t, c, Cardigan	1 0 0	1 1/2	1 1/2
20000 Deep Level, t, c, Flintshire	1 0 0	1 1/2	1 1/2
1536 D'Eresby Mountain, t, c, Llanrwst	1 0 0	1 1/2	1 1/2
20000 Denbighshire Consolidated, t, c	1 0 0	1 1/2	1 1/2
12000 Derwent, t, c, Durham	1 0 0	1 1/2	1 1/2
100000 Devon, t, c, Tavis (120000 sh.)	1 0 0	1 1/2	1 1/2
12000 Devon Great United, t, c, Tavis	1 0 0	1 1/2	1 1/2
20000 Devonshire, t, c, s-l, Lydford	1 0 0	1 1/2	1 1/2
10000 Dubby Syke, t, c, Durham	1 0 0	1 1/2	1 1/2
6000 East Botallack, t, c, St. Just	1 0 0	1 1/2	1 1/2
6144 East Caradon, t, c, Cleer	1 0 0	1 1/2	1 1/2
4000 East Chiverton, t, c, Perranzabuloe	1 0 0	1 1/2	1 1/2
12000 East Crebor, t, c, Tavis	1 0 0	1 1/2	1 1/2
15000 East Devon Cons., t, c, Buckfastleigh	1 0 0	1 1/2	1 1/2
12000 East Herodsfoot, t, c, Liskeard	1 0 0	1 1/2	1 1/2
20000 East Long Lake, t, c, Wales	1 0 0	1 1/2	1 1/2
21000 East Roman Gravel, t, c, Salop	1 0 0	1 1/2	1 1/2
18000 East Van, t, c, Llanidloes	1 0 0	1 1/2	1 1/2
4096 East Wheel Hall, t, c, Gwynnapp	1 0 0	1 1/2	1 1/2
2096 East Wheel Hall, t, c, Helston	1 0 0	1 1/2	1 1/2
10000 Fortescue (Stannary), t, c, s-l	1 0 0	1 1/2	1 1/2
12000 Gawton, t, c, Tavis (21 sh.)	1 0 0	1 1/2	1 1/2
14000 Glenroy, t, c, s-l, East of Man	1 0 0	1 1/2	1 1/2
30000 Gobbett, t, c, Dartmoor	1 0 0	1 1/2	1 1/2
10000 Gover Consols, t, c, St. Austell	1 0 0	1 1/2	1 1/2
25000 Great Consols, t, c, St. Austell	1 0 0	1 1/2	1 1/2
20000 Great Dyllife, t, c, (10000 sh. issued)	1 0 0	1 1/2	1 1/2
12000 Great Holway, t, c, Flintshire	1 0 0	1 1/2	1 1/2
6000 Great West Chiverton, t, c, St. Agnes	1 0 0	1 1/2	1 1/2
10000 Griffin, t, c, s-l, Carnarvon	1 0 0	1 1/2	1 1/2
10000 Gwyn-y-Mynydd, t, c, s-l, Flintshire	1 0 0	1 1/2	1 1/2
1250 Gwyddel Cons., t, c, Carnarvon	1 0 0	1 1/2	1 1/2
1200 Hartington Moor, t, c, s-l, Derby	1 0 0	1 1/2	1 1/2
6400 Harwood, t, c, Liskeard	1 0 0	1 1/2	1 1/2
12000 Harwood, t, c, Liskeard	1 0 0	1 1/2	1 1/2
18000 Hingston Down, t, c, Calstock	1 0 0	1 1/2	1 1/2
15000 Indian Queens Cons., t, c, St. Columb	1 0 0	1 1/2	1 1/2
20000 Kirk Michael, t, c, (20000 sh. issued)	1 0 0	1 1/2	1 1/2
6000 Killfret, t, c, Chacewater	1 0 0	1 1/2	1 1/2
25000 Kit Hill Gt. Cons., t, c, s-l, (21 sh.)	1 0 0	1 1/2	1 1/2
15000 Lady Ann, t, c, Llanarmon	1 0 0	1 1/2	1 1/2
30000 Lady Ashburton, t, c, Callington	1 0 0	1 1/2	1 1/2
15000 Lady Bertha, t, c, Tavis	1 0 0	1 1/2	1 1/2
12000 Ladywell, t, c, Salop (12000 sh. issued)	1 0 0	1 1/2	1 1/2
10000 Langstone, t, c, Devon	1 0 0	1 1/2	1 1/2
5000 Lead Era, t, c, Mold	1 0 0	1 1/2	1 1/2
25000 Levant, t, c, St. Just	1 0 0	1 1/2	1 1/2
15000 Llandegla, t, c, Wales	1 0 0	1 1/2	1 1/2
10000 Llanidloes, t, c, Helston	1 0 0	1 1/2	1 1/2
5120 Lovell, t, c, Wendron	1 0 0	1 1/2	1 1/2
37500 Llanrwst, t, c, Carnarvon	1 0 0	1 1/2	1 1/2
9000 Marke Valley, t, c, Llanidloes	1 0 0	1 1/2	1 1/2
18000 Mawston, t, c, South Wales	1 0 0	1 1/2	1 1/2
10000 Melrose, t, c, Wenden	1 0 0	1 1/2	1 1/2
28000 Melrose, t, c, (17000 sh. issued)	1 0 0	1 1/2	1 1/2
15000 Monkstoun, t, c, Devon	1 0 0	1 1/2	1 1/2
20000 Mostyn Consols, t, c, Flint	1 0 0	1 1/2	1 1/2
10000 Mynydd Gddu, t, c, Cardigan	1 0 0	1 1/2	1 1/2
25000 Mynydd Gddu, t, c, (18000 sh. issued)	1 0 0	1 1/2	1 1/2
12000 Morfa Du, t, c, s-l, Anglesea	1 0 0	1 1/2	1 1/2
6144 Mount Carbis, t, c, Redruth	1 0 0	1 1/2	1 1/2
2400 New Colicath, t, c, Illogan	1 0 0	1 1/2	1 1/2
8000 New Dolcoath, t, c, Camborne	1 0 0	1 1/2	1 1/2
6000 New Kitty, t, c, St. Agnes	1 0 0	1 1/2	1 1/2

## NON-DIVIDEND MINES—continued.

Shares.	Divid.	Last wk.	Clos. pr.
12000 New Penrose, t, c, Helston (11 sh.)	1 0 0	1 1/2	1 1/2
3500 New Tincroft, t, c, Lelant	1 0 0	1 1/2	1 1/2
6000 New West Caradon, t, c, Liskeard	1 0 0	1 1/2	1 1/2
3000 New Wheel Pevor, t, c, Redruth	1 0 0	1 1/2	1 1/2
35000 New Wye Valley, t, c, Montgomery	1 0 0	1 1/2	1 1/2
20000 North Alfred, t, c, Phillack	1 0 0	1 1/2	1 1/2
10000 N. D'Eresby Mount, t, c, s-l, Carnarv.	1 0 0	1 1/2	1 1/2
12000 North Herodsfoot, t, c, Liskeard	1 0 0	1 1/2	1 1/2
5000 North Molton, t, c, s-l, Devon	1 0 0	1 1/2	1 1/2
5000 North Penstruthal, t, c, Gwynnapp	1 0 0	1 1/2	1 1/2
2336 North Trekerby, t, c, St. Agnes	1 0 0	1 1/2	1 1/2
8000 Northern, t, c, Durham	1 0 0	1 1/2	1 1/2
12000 Pandora, t, c, Carnarvon	1 0 0	1 1/2	1 1/2
11612 Pant-y-Mwyn, t, c, Mold	1 0 0	1 1/2	1 1/2
20000 Parka Mines Consols, t, c, St. Columb	1 0 0	1 1/2	1 1/2
6000 Parracombe, t, c, Devon	1 0 0	1 1/2	1 1/2
45000 Parys Corporation, t, c, Anglesea	1 0 0	1 1/2	1 1/2
7500 Pateley Bridge, t, c, Yorkshire	1 0 0	1 1/2	1 1/2
15000 Ditto (also 7500 sh. not issued)	1 0 0	1 1/2	1 1/2
6000 Pedn-a-drea, t, c, Redruth	1 0 0	1 1/2	1 1/2
6000 Penardines United, t, c, Camborne	1 0 0	1 1/2	1 1/2
10000 Pen-y-Oscedd, t, c, Flintshire	1 0 0	1 1/2	1 1/2
10000 Pioneer, t, c, Wales	1 0 0	1 1/2	1 1/2
12000 Plynlimmon, t, c, Llanidloes	1 0 0	1 1/2	1 1/2
10000 Polrose, t, c, Cornwall	1 0 0	1 1/2	1 1/2
10000 Port Nigel, t, c, s-l, Carnarvonshire	1 0 0	1 1/2	1 1/2
12000 Prince of Wales, t, c, Calstock	1 0 0	1 1/2	1 1/2
50000 So. Cambrian, t, c, Cardigan	1 0 0	1 1/2	1 1/2
30000 South D'Eresby Mountain, t, c	1 0 0	1 1/2	1 1/2
35000 So. Devon Unit, t, c, Buckfastleigh	1 0 0	1 1/2	1 1/2
6000 South Penstruthal, t, c, Gwynnapp	1 0 0	1 1/2	1 1/2
6000 South Roskear, t, c, Camborne	1 0 0	1 1/2	1 1/2
6000 South Tolcarne, t, c, Camborne	1 0 0	1 1/2	1 1/2
40000 South Wheel Pevor, t, c, Tavis	1 0 0	1 1/2	1 1/2
40000 South Wheel Pevor, t, c, Illogan	1 0 0	1 1/2	1 1/2
4000 St. Just United, Cornwall	1 0 0	1 1/2	1 1/2
30000 Talybont, t, c, Cardigan	1 0 0	1 1/2	1 1/2
40000 Tamar, t, c, Beaulieu	1 0 0	1 1/2	1 1/2
6400 Teesdale, t, c, Durham (pref.)	1 0 0	1 1/2	1 1/2
20000 Tin Hill, t, c, St. Stephens	1 0 0	1 1/2	1 1/2
10000 Temple, t, c, Cardigan	1 0 0	1 1/2	1 1/2
5000 Treleigh Wood, t, c, Redruth	1 0 0	1 1/2	1 1/2
12000 Trevelian Consols, t, c, Gwynnapp	1 0 0	1 1/2	1 1/2
6000 Truro, t, c, St. Columb	1 0 0	1 1/2	1 1/2
6400 Truro, t, c, Nerrquis, Flintshire	1 0 0	1 1/2	1 1/2
10000 Tyn-y-Fron, t, c, Cardigan	1 0 0	1 1/2	1 1/2
11000 Un. Van & Glyn, t, c, (41500 othersh.)	1 0 0	1 1/2	1 1/2
10000 Vaughan, t, c, Cardigan	1 0 0	1 1/2	1 1/2
18000 Victor, t, c, Cilcenn, Flintshire	1 0 0	1 1/2	1 1/2
15000 Vincent, t, c, Altarnun	1 0 0	1 1/2	1 1/2
12000 West Assheton, t, c, Carnarvon	1 0 0	1 1/2	1 1/2
6000 West Caradon, t, c, St. Cleer	1 0 0	1 1/2	1 1/2
30000 West Craven Moor, t, c, Pateley Bridge	1 0 0	1 1/2	1 1/2
12000 West Crebor, t, c, Tavis	1 0 0	1 1/2	1 1/2
10240 West Devon Consols, t, c, Calstock	1 0 0	1 1/2	1 1/2
10000 West Dolphint, t, c, Breage	1 0 0	1 1/2	1 1/2
12000 West Holway, t, c, Flintshire	1 0 0	1 1/2	1 1/2
6000 West Kitty, t, c, St. Agnes	1 0 0	1 1/2	1 1/2
20000 W. Llanidloes, t, c, (11 sh.) Cardigan	1 0 0	1 1/2	1 1/2
3000 West Mary Ann, t, c, Menhenio	1 0 0	1 1/2	1 1/2
20000 West Pateley Bridge, t, c, Yorkshire	1 0 0	1 1/2	1 1/2
12000 West Phoenix, t, c, Cardigan	1 0 0	1 1/2	1 1/2
6000 West Porthleven, t, c, St. Agnes	1 0 0	1 1/2	1 1/2
5190 West Poldice, St. Day	1 0 0	1 1/2	1 1/2
2048 West Wheel Pevor, t, c, Illogan	1 0 0	1 1/2	1 1/2
3000 West Wheel Pevor, t, c, Redruth	1 0 0	1 1/2	1 1/2
12000 West Wye Valley, t, c, Montgomery	1 0 0	1 1/2	1 1/2
6000 Wheel Agar, t, c, Illogan	1 0 0	1 1/2	1 1/2
6144 Wheel Bassett, t, c, Illogan	1 0 0	1 1/2	1 1/2
3000 Wheel Boss, t, c, Redruth	1 0 0	1 1/2	1 1/2
12000 Wheel Coates United, t, c, St. Agnes	1 0 0	1 1/2	1 1/2
2585 W. Conf., t, c, No. Tres., t, c, Gwynnapp	1 0 0	1 1/2	1 1/2
15000 Wheel George, t, c, Liskeard	1 0 0	1 1/2	1 1/2
12288 Wheel Jane, t, c, Kea	1 0 0	1 1/2	1 1/2
12000 Wheel Jewell, t, c, St. Hilary	1 0 0	1 1/2	1 1/2
25000 Wh. Honey and Trelawny, t, c, Lisk.	1 0 0	1 1/2	1 1/2
12000 Wheel Luskay, t, c, Callington	1 0 0	1 1/2	1 1/2
2000 Wheel Owles, t, c, St. Just	1 0 0	1 1/2	1 1/2
6000 Wh. Prussia, t, c, Cardigan	1 0 0	1 1/2	1 1/2
12000 Wheel Russell, t, c, Tavis	1 0 0	1 1/2	1 1/2
6000 Wheel Sisters, t, c, Lelant	1 0 0	1 1/2	1 1/2
4096 Wheel Uny, t, c, Redruth	1 0 0	1 1/2	1 1/2
4000 Ystwith, t, c, Cardigan	1 0 0	1 1/2	1 1/2

b, blende; c, copper; g, gold; l, lead; s, silver; sl, slate; s-l, silver-lead; t, tin; z, zinc; i, iron; a, arsenic.  
\* Limited Liability Companies; † quoted on the Stock Exchange; ‡ have paid dividends.

## NON-DIVIDEND FOREIGN MINES; FOREIGN AND MISCELLANEOUS STOCKS; TRAMWAYS; INSURANCE COMPANIES; GAS, IRON AND COAL, WAGON COMPANIES, &amp;c.

## NON-DIVIDEND FOREIGN MINES.

Shares	Divid.	Clos.	pr.
150000 Akankoo, <i>g</i> , Gold Coast .....	1	0	0...
12000 Arendal, <i>c</i> , Norway .....	4	0	0... 2½ 3
5000 Blue Tent, <i>hyd</i> , California .....	5	0	0... 1½ 2
40000 Brazilian, <i>g</i> , Brazil .....	1	0	0... 1½ 1½
10000 Buena Ventura, <i>t</i> , Spain (fy. pd.) .....	2	0	0...
130000 Callao, <i>g</i> , Colorado .....	1	0	0... 1½ 1½
130000 Callao Bis, <i>g</i> , Venezuela .....	1	0	0... 1½ 1½
15000 Canadian, <i>g</i> , Canada .....	4	0	0... 2½ 2½
22500 Canadian, <i>g</i> , Canada .....	5	0	0...
34433 Cedar Creek, <i>g</i> , California* .....	5	0	0...
100000 Cheranabadi (Wynnad) District, <i>g</i> , India .....	1	0	0...
105055 Chontales, <i>g</i> , <i>s</i> , Nicar.*† (98000 iss.) .....	1	0	0... ¾ ¾
150000 Colar, <i>g</i> , Mysore .....	1	0	0...
75000 Colombian Hydraulic, <i>g</i> , Colombia .....	1	0	0...
65000 Colorado United, <i>s</i> , Colorado*†], .....	5	0	0... 2½ 2½
90000 Consolidated Mining .....	1	0	0... ¾ ¾
200000 Devala Moya, <i>g</i> , Wynnad .....	1	0	0... 1½ 1½
75000 Devala Provident, <i>g</i> , Wynnad .....	0	5	0... ¾ ¾
50000 Dies, Donne, <i>g</i> , Surinam .....	0	12	6...
10000 El Por Non North West, <i>g</i> , Victoria .....	1	0	0... ¾ ¾
20000 English Australian, <i>g</i> , Victoria .....	1	0	0... 1½ 1½
130000 Exchequer, <i>g</i> , <i>s</i> , California*†] .....	1	0	0... ¾ ¾
65000 Gold Coast, <i>g</i> , Wassau .....	1	0	0...
250000 Gold Mining Assn. of Canada* .....	1	0	0...
120000 Hoover Hill, <i>g</i> , North Carolina .....	1	0	0...
10000 Hornachos, <i>s</i> , <i>s</i> , Spain .....	5	0	0... 10 10½
12000 Hultafalt, <i>g</i> , <i>t</i> , <i>bl</i> , Orebro, Sweden .....	5	0	0...
100000 Ind. Glenrock, <i>g</i> , Wynnad (fy. pd.) .....	1	0	0... 1½ 1½] xvn
150000 Indian Mammoth, <i>g</i> , Chulmulla .....	0	5	0...
150000 Indian Phenix, <i>g</i> , Wynnad .....	1	0	0... 1½ 1½
150000 Indian Phoenix, <i>g</i> , Wynnad .....	1	0	0... 1½ 1½
100000 I.X.L., <i>g</i> , <i>s</i> , California* .....	1	0	0... ¾ ¾
50000 Javali, <i>g</i> , Nicaragua* .....	2	0	0...
50000 Kapangi, <i>g</i> , New Zealand .....	1	0	0... ¾ ¾
100000 La Concepcion, <i>g</i> , Venezuela .....	1	0	0...
65000 London and California, <i>g</i> *†] .....	2	0	0... ¾ ¾
135000 Madras, <i>g</i> , Mysore .....	1	0	0...
100000 Michipicoten, <i>s</i> , nat., <i>c</i> , Quebec .....	1	0	0...
9000 Missouri, <i>t</i> , pref. (fully paid) .....	10	0	0... 10½ 11
135000 Mysore, <i>g</i> , India .....	0	10	0... 1 1½
120000 Mysore Reefs, <i>g</i> , Madras .....	1	0	0... 1½ 1½
150000 New River, <i>g</i> , <i>s</i> , Spain .....	1	0	0... ¾ 1
125000 Needlework, <i>g</i> , Wynnad .....	1	0	0...
37000 N. Gold Run, <i>hyd</i> , Cal. (23000 pref.) .....	1	3	0...
200000 Nouv. Monde, <i>g</i> , Venez. (en com.) .....	1	0	0... 1½ 1½
100000 Nundydroog, <i>g</i> , Mysore .....	0	10	0...
125000 Ooregum, <i>g</i> , Mysore .....	1	0	0...
150000 Orogans, <i>g</i> , Colombia .....	1	0	0... 1½ 1½
80000 Pestarena United, <i>g</i> , Italy*† .....	3	0	0... ¾ ¾
80000 Pierrefitte (20000 pref.) .....	1	0	0...
30000 Placeville, <i>g</i> , California .....	2	0	0...
30000 Potosi, <i>g</i> , Venezuela .....	1	0	0... 1½ 1½
80000 Rangoon, <i>g</i> , Aust. Repub. .....	1	0	0...
40000 Ravenscliff, <i>g</i> , N. Zind.; <i>s</i> , Aust. .....	0	10	0...
190000 Rhodes Reef, <i>g</i> , Wynnad .....	0	15	0... 5½ 7½
25000 Rico, <i>s</i> , Colorado (non-assessable) .....	2	0	0...
8600 Rio Grande do Sul* (and 31,000 pref.) .....	5	0	0...
100000 Riosa Grande, <i>g</i> , Brazil*† (£1 sh.) .....	1	0	0... ¾ ¾
25300 Ruby and Dunderberg, <i>g</i> , Nevada* .....	10	0	0... 7 7½
34022 San Pedro, <i>s</i> , Chili .....	1	15	0...
30000 So. Indian, <i>g</i> , Madras (fully paid) .....	1	0	0... 2 2½
100000 South-East Wynnad, <i>g</i> , India .....	1	0	0... 1½ 1½
400000 Tarsila, <i>g</i> , <i>s</i> , San. Spain (31000 f. p.) .....	1	0	0... 38½ 39½
40000 United, <i>g</i> , Mexico .....	29	3	0... 2 2½
50000 Vinreberg, <i>c</i> , Rheinbreitb., Ger. .....	2	0	0...
100000 West Frntno & Boliv., <i>g</i> , Colombia .....	1	0	0...
80000 Wynnad Perseverance, <i>g</i> .....	1	0	0... ¾ 1
75000 Yoko Peninsula, <i>c</i> , So. Australia .....	1	0	0... 1½ ¾
54800 Yorke Pen., <i>c</i> , South Aust. Pref. .....	1	0	0... ¾ ¾